Small Countries in the World Economy: The Case of Sweden

What Canada Can Learn from the Swedish Experience

by
Dezsö J. Horváth
and Donald J. Daly

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Foreword

In formulating public policy options and in particular considering economic policy choices, Canadians can benefit from an examination of the experiences of other nations. This study by Horváth and Daly examines the case of Sweden. As the authors point out, there are many parallels between Sweden and Canada in the size of their economies and population, their geography and their position in the world trading system. Sweden is a northern country, it has a high per capita income, it has a substantial foreign debt on a per capita basis, a high export orientation, and its population is comparable to that of Ontario.

It is always difficult to draw precise conclusions from comparative studies, but the Swedish experience does commend itself to Canadian policymakers. Each country must deal with issues such as whether or not to enter into a Free Trade Agreement with a large southern partner, how to formulate monetary and fiscal policies in a world of volatile exchange rates and large global trade imbalances, and how to formulate adjustment policies to respond to external shocks, whether those shocks come in the form of volatile oil prices or interest rates.

As indicated by Institute research on the prospects for high technology industries in Canada, appropriate public policies can facilitate Canadian adjustment to changes in international competition. Canada like Sweden must make sure that it has the educational capabilities to develop human resources which will foster vigorous and dynamic goods producing and service industries. Canada like Sweden must find those

niches in world markets where Canadian firms can prosper and yield the economic returns to sustain our preferred life style.

Rod Dobell
President
Institute for Research on Public Policy

Avant-propos

Au moment de déterminer leurs options de politique générale, et plus particulièrement leurs choix en matière de politiques économiques, les Canadiens pourraient avoir intérêt à tenir compte des expériences d'autres pays. Dans la présente étude, Horváth et Daly examinent le cas de la Suède. Comme le font remarquer les auteurs, il existe beaucoup d'analogies entre ce pays et le Canada: économie et population du même ordre de grandeur, géographie similaire et même rang dans le système commercial international. La Suède est un pays nordique qui jouit d'un revenu élevé par habitant, dont la dette étrangère est importante par rapport à sa population, il est fortement orienté vers l'exportation et sa population est comparable à celle de l'Ontario.

Il est toujours délicat de tirer des conclusions précises à partir d'études comparatives, néanmoins le cas de la Suède devrait retenir l'attention des dirigeants politiques canadiens. Les deux pays doivent, chacun de son côté, résoudre des questions semblables: adhérer ou non à un accord de libre-échange avec un puissant partenaire du sud; élaborer des politiques monétaires et fiscales dans un contexte de taux de change fluctuants et d'importants déséquilibres des balances commerciales mondiales; mettre sur pied les moyens correctifs nécessaires afin de répondre aux perturbations économiques externes, que celles-ci soient dues à des fluctuations dans les prix du pétrole ou à des taux d'intérêt irréguliers.

Comme l'indiquent les recherches de l'Institut sur les chances de réussite des industries de la technologie de pointe au Canada, des politiques générales appropriées pourraient faciliter l'adaptation du Canada aux changements qui surviennent dans la concurrence internationale. Le Canada, comme la Suède, doit s'assurer qu'il a les moyens éducatifs nécessaires au développement des ressources humaines pour la mise sur pied

d'industries vigoureuses et dynamiques dans les domaines de la production des biens et des services. Le Canada, comme la Suède, doit trouver dans les marchés mondiaux les créneaux qui permettront aux entreprises canadiennes de prospérer et d'obtenir les profits que réclame le maintien du style de vie que nous affectionnons.

Rod Dobell
Président
Institut de recherches politiques

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government policy and corporate strategies in achieving improved performance. He has also studied similar developments in Japan.

Summary

Sweden and Canada have a number of similarities in spite of the distance in miles and travel time between them. They are both intermediate in size of populations on a world basis, are both countries with high real incomes, both are well endowed with natural resources and both have high ratios of exports and imports to GDP (a feature common to many of the smaller countries). On the other hand, there are a number of important and interesting differences. For example, Sweden has been a more active and successful exporter of manufactured products than Canada. Sweden has also been relatively successful in achieving the structural changes needed to adapt to changes in world demands and international competition in changing circumstances, an area where Canada has not always been successful.

This study is designed to review the major factors that have contributed to the sources of the successes in Sweden, but also the main reasons for problems and failures. The main aim was to draw lessons from that experience for a Canadian audience. The study gives special attention to the period since the early 1970s, which includes one of the most severe and protracted periods of adjustment for Sweden in the present century. It also covers the more recent period of recovery in exports, private investment and profits during the 1980s. These developments are put into their historical context, recognizing the differences in political and social institutions between Sweden and Canada.

Sweden has had a relatively high rate of economic growth over the last hundred years by international standards. Business cycle recessions have usually been mild by international standards. An important factor in their performance in manufacturing has been a long history of low tariffs. Sweden was a member of the European Free Trade Association initially and in 1973 entered into a Free Trade Association Agreement with

the European Economic Community, with access to a market in excess of 300 million people [on a free trade basis in industrial products]. Sweden has historically put high priority on education, with special emphasis on science and engineering. Continuing education and retraining has been given increased emphasis in the last few decades. This emphasis on education has been facilitated by their unitary system of government.

Sweden has also had to deal with a series of economic crises during the present century. In the period after World War I they experienced inflation, deflation and the international foreign exchange crisis. During the 1930s, they were buffeted by the high level of unemployment in the Great Depression and the exchange rate adjustments and protectionist policies in Europe and North America. In the period after World War II, they were faced with inflation, the postwar adjustments in exchange rates and the reduction of tariff and non-tariff barriers to trade. The common theme on the Swedish side to these international disturbances was a restructuring of employment and production from declining to expanding industries and products that permit them to respond positively to the new environment. The outward orientation of Swedish trade policies was complemented by prudent fiscal policies and positive adjustment policies stressing retraining.

The crisis in the 1970s for Sweden in relation to the world economy was longer and more severe in some respects than the three earlier crises since World War I. No single factor can explain the cause or the severity. Internationally, inflation, oil price increases, slower growth in the industrialized countries and the collapse of the system of stable exchange rates all contributed to the problems of environmental uncertainty. International competition from Japan in such products as ships and roller bearings contributed to structural problems in those and related industries such as steel. These international developments contributed to problems but they were clearly intensified by inappropriate macroeconomic policies within Sweden – large budget deficits, rapid increases in the money supply domestically and resultant inflation at a more rapid rate than Sweden's closest competitors. At the micro level, the government introduced large subsidies to declining industries, but the policies tended to defend and support weak industries rather than facilitating change as in previous periods of crisis.

Economic symptoms of these changes internationally and within Sweden included high domestic inflation and high unit labour costs in Swedish manufacturing compared to their closest competitors. These developments were reflected in a decline in the Swedish share in export markets, and a large balance of payments deficit. The government financed part of their budget deficit by sale of bonds abroad which helped maintain an overvalued exchange rate. Unemployment domestically was masked by an enlarged number of the labour force being retrained. A clear lack of confidence in the domestic political and economic institutions emerged.

These problems seem to have been addressed more successfully in the 1980s. Domestic inflation was finally checked and the Swedish krona depreciated by half in relation to the U.S. dollar between 1980 and 1985. The heavy emphasis on subsidies to declining industries was cutback and industrial support for growth and renewal areas (R and D and exports, for example) was increased. Another important development was a significant increase in manufacturing productivity, well in excess of real wages in

manufacturing. These developments have been reflected in a significant recovery in corporate profits, business investment and exports. Swedish unemployment rates have stayed below the higher levels in the other industrialized countries in Western Europe during the 1980s.

There are a number of positive lessons from this Swedish experience for Canada. First, the history of low tariff and other trade barriers has encouraged productive and competitive producers in selective areas of Swedish manufacturing, and related exports and multinational investment. Second, the emphasis on general education, retraining and engineering and technical training has been important in the development and implementation of new technology at a rapid rate. Third, the emphasis on positive adjustment through flexibility in industrial structure to changing domestic and foreign markets has yielded significant benefits (with the exception of a period in the 1970s when government policies supported declining industries). Government policies have usually (but not consistently) tended to reinforce and help market forces in reallocating employment and exports to the growth areas rather than replacing the market. Sweden seems to have been able to combine policies to help growth and efficiency with policies that achieve a significant degree of income redistribution—a combination that other countries have rarely achieved.

These policies, together with the appropriate responses from labour and management, have led to levels of real income close to North American levels and higher than the other countries of Europe, including such countries as France and Germany. Canada, on the other hand, continues to perform with a level of real GDP per capita and per person employed about ten percent below the U.S., and an even larger gap for output per hour in manufacturing.

However, there are also some negative lessons to draw from some of the policies followed by Sweden in the late 1970s. A combination of high domestic inflation (based on excessively expansionary monetary and fiscal policies within Sweden) and overvalued exchange rates contributed to loss of world market shares, a collapse in corporate profitability and business investment, and a large balance of payments deficit. The government tried to offset the impact of these market forces by subsidies to support employment in the declining industries. It is important that Canada not follow the inappropriate policies that Sweden adopted during the 1970s, in contrast to their sounder macroeconomic policies historically. The modification and abandonment of these policies in Sweden returned that country closer to the policies that had historically combined high growth and structural flexibility. These policies have laid the basis for the significant recovery in productivity, profitability, investment and exports in Sweden in the 1980s.

Subsequent chapters set out the Swedish experience briefly but completely, with special emphasis on the positive and negative lessons that Canada can draw from that experience. Canada, like Sweden, has to cope with a changing world environment and greater instability in exchange rates among the major industrialized countries. How can a small country maintain domestic price stability, high rates of real economic growth and low unemployment? Apart from the 1970s, Sweden has done rather well in achieving these broad economic goals. In light of some of the parallels between the two economies,

the Swedish experience may suggest how Canada could achieve better economic performance while avoiding some of the mistakes and problems.

Abrégé

La Suède et le Canada ont un certain nombre de traits communs, en dépit de la distance qui les sépare. Les deux pays ont une population de moyenne importance, comparé au reste du monde, ils jouissent d'un revenu réel élevé, ils sont tous les deux bien pourvus en ressources naturelles et ont de forts coefficients d'exportation et d'importation par rapport à leur P.I.B. (une caractéristique commune à beaucoup de petits pays). D'un autre côté, plusieurs différences notables et intéressantes les distinguent. Par exemple, la Suède a montré beaucoup plus de dynamisme et rencontré davantage de succès que le Canada dans l'exportation de produits manufacturés. La Suède a également bien réussi à opérer les transformations structurelles lui permettant de s'adapter aux changements dans la demande et la concurrence internationales dans une période de transformations constantes, alors que le Canada n'a pas toujours connu le succès dans ce domaine.

Cette étude entreprend l'examen des facteurs majeurs qui sont à l'origine de la réussite de l'économie suédoise, ainsi que des principales raisons à l'origine des problèmes et des échecs, l'objectif dernier étant d'en tirer les leçons nécessaires pour un public canadien. L'étude se concentre spécialement sur la période qui suit le début des années 70, laquelle comprend l'une des périodes d'ajustement les plus difficiles et les plus prolongées pour la Suède, au cours de ce siècle. Elle examine aussi la période plus récente des années 80 qui a vu le rétablissement des exportations, de l'investissement privé et des profits. Ces événements sont replacés dans leur contexte historique, du fait des différences qui existent entre la Suède et le Canada sur le plan politique aussi bien que sur celui des institutions sociales.

Par rapport aux normes internationales, la Suède a connu un taux de croissance économique relativement élevé au cours des cent dernières années. Les récessions

cycliques de l'économie ont généralement été modérées par rapport aux normes internationales. La pratique d'une politique continue de tarifs peu élevés a joué un rôle important dans la production de produits manufacturés. La Suède a d'abord été membre de l'Association européenne de libre-échange et, en 1973, elle s'est engagée dans un accord d'association de libre-échange avec la Communauté économique européenne, ce qui lui a donné accès à un marché de plus de 300 millions d'individus [basé sur le libre-échange des produits industriels]. Historiquement, la Suède a toujours accordé une grande importance à l'enseignement, particulièrement dans le domaine des sciences et du génie. L'éducation permanente et le recyclage sont devenus de plus en plus prioritaires au cours des dernières décennies. Cet effort en matière d'enseignement a été facilité par un système de gouvernement centralisateur.

La Suède a également dû faire face à une série de crises économiques au cours de ce siècle. Après la première guerre mondiale, elle a connu l'inflation, la déflation et la crise internationale en matière de change. Durant les années 50, elle a été aux prises avec le taux de chômage élevé causé par la grande dépression économique, ainsi qu'avec les ajustements du taux de change et la pratique de politiques protectionnistes en Europe et en Amérique du Nord. Après la deuxième guerre mondiale, elle a encore été confrontée à l'inflation, aux corrections des taux de change de l'après-guerre et à la réduction des barrières commerciales tarifaires et non tarifaires. La Suède, pour sa part, a répondu à ces perturbations internationales en délaissant les secteurs en déclin et en restructurant sa force de travail et sa production en fonction des industries et des produits en expansion, ce qui lui a permis de répondre positivement aux demandes du nouvel environnement. L'orientation de la politique commerciale vers les marchés extérieurs a été appuyée par des mesures fiscales prudentes et par une politique d'adaptation positive insistant sur le recyclage des travailleurs.

La crise qu'a subi la Suède dans les années 70, en relation avec l'économie mondiale, a été d'une certaine manière plus longue et plus sérieuse que les trois crises antérieures survenues depuis la première guerre mondiale. Cette situation n'a pas été le fait d'une cause unique. À l'échelon international, l'inflation, l'augmentation du prix du pétrole, le ralentissement de la croissance économique dans les pays industrialisés et l'effondrement du système des taux de change stables, tous ces facteurs ont contribué à créer un climat d'incertitude. La concurrence japonaise dans les domaines de la construction de navires et des roulements à rouleaux a entraîné des problèmes de restructuration dans ces domaines et dans les industries connexes comme celle de l'acier. Ces transformations internationales ont toutes joué leur rôle dans la crise, mais celle-ci a été clairement aggravée en Suède par des mesures internes de politique macro-économique peu appropriées: déficits budgétaires considérables, accroissement rapide de la masse monétaire à l'intérieur du pays, avec comme résultat un taux d'inflation plus rapide en Suède que chez ses plus proches concurrents. Au niveau micro-économique, le gouvernement a octroyé de grosses subventions aux industries en déclin, mais les politiques tendaient à défendre et à soutenir les secteurs industriels faibles au lieu de faciliter la transformation de l'économie, comme dans les périodes de crise antérieures.

Le taux de l'inflation et le coût de la main-d'œuvre, symptômes économiques internationaux, demeuraient plus élevés en Suède que chez ses concurrents les plus proches. Il en est résulté pour ce pays un déclin de son rôle sur les marchés d'exportation

et un déficit considérable dans sa balance des paiements. Pour tenter de financer une partie de son déficit budgétaire, le gouvernement a recouru à des émissions d'obligations sur les marchés étrangers et a ainsi contribué à maintenir un taux de change surévalué. Au pays, le chômage était masqué par un enrôlement accru d'une grande partie de la main-d'œuvre dans les programmes de recyclage. Bref, un manque de confiance très net dans les institutions politiques et économiques du pays se faisait jour.

Il semble qu'on ait trouvé de meilleures solutions à ces problèmes au cours des années 80. L'inflation interne a été finalement contrôlée et la couronne suédoise a subi une dévaluation de moitié par rapport au dollar américain, entre 1980 et 1985. La pratique d'accorder des subventions aux industries en déclin a été remise en question et l'aide industrielle aux secteurs de croissance et de réadaptation a été accrue (en matière d'exportation et de R & D, par exemple). Un autre phénomène qui a joué un rôle important est celui de l'accroissement marqué dans la productivité de produits manufacturés, bien au-delà des salaires réels dans ce secteur. Il en est résulté un rétablissement notable dans les bénéfices des entreprises, les investissements industriels et les exportations. Les taux de chômage sont restés inférieurs aux plus forts taux des autres pays industrialisés de l'Europe de l'Ouest, au cours des années 80.

Il y a dans cette expérience suédoise plusieurs leçons positives à tirer pour le Canada. D'abord, le maintien des barrières tarifaires et autres à un niveau peu élevé a encouragé l'établissement de producteurs efficaces et concurrentiels dans des secteurs choisis de l'industrie manufacturière et dans les exportations qui s'y rattachent, et a favorisé les investissements multinationaux. Ensuite, l'accent mis sur l'enseignement général, sur le recyclage, sur la formation des ingénieurs et des techniciens a joué un rôle important dans le développement et la mise en œuvre rapide de nouvelles technologies. Enfin, l'importance accordée à une adaptation positive aux fluctuations des marchés nationaux et internationaux, au moyen d'une structure industrielle flexible, a donné des résultats intéressants (excepté dans la période des années 70, quand le gouvernement soutenait les industries en perte de vitesse). Les politiques gouvernementales ont habituellement (mais non pas uniformément) tendu à renforcer et à soutenir les forces du marché, en déplaçant la main-d'œuvre et les activités d'exportation vers les secteurs de croissance, plutôt qu'en remplaçant le marché. Les Suédois paraissent avoir été capables de combiner des politiques destinées à aider la croissance et l'efficacité avec des mesures permettant, à un degré notable, de procéder à une redistribution du revenu; une combinaison que les autres pays ont rarement réussi à réaliser.

Ces politiques, renforcées par les réponses favorables de la part des travailleurs et du patronat, ont permis d'atteindre des niveaux de revenu réel proches de ceux d'Amérique du Nord et plus élevés que ceux des autres pays d'Europe, y compris de pays tels que la France et l'Allemagne. Le Canada, par ailleurs, continue à fonctionner avec un niveau de P.I.B. réel par habitant et par personne employée d'environ dix pour cent inférieur à celui des États-Unis, avec une différence de rendement horaire encore plus grande dans le domaine de la fabrication.

Toutefois, certaines des politiques suédoises des années 70 comportent également des aspects négatifs. L'inflation interne élevée (due à des politiques nationales monétaires et fiscales notoirement inflationnistes) ainsi que les taux de change

surévalués ont contribué à la perte de certaines positions sur le marché mondial, ainsi qu'à un effondrement des bénéfices des entreprises et des placements commerciaux et à un important déficit dans la balance des paiements. Le gouvernement a essayé de neutraliser l'impact de ces forces du marché par des subventions destinées à aider la main-d'œuvre des industries en déclin. Il est important que le Canada n'imite pas ces mesures inefficaces adoptées dans les années 70 par la Suède, en contradiction avec la saine politique macro-économique traditionnelle de ce pays. La réforme et l'abandon de ces mesures ont conduit la Suède à reprendre les politiques historiques qui lui avaient permis d'allier croissance économique élevée et flexibilité structurelle. De telles mesures ont abouti à une renaissance importante dans les domaines de la productivité, des profits, des investissements et des exportations en Suède, dans les années 80.

Les chapitres qui suivent donnent des détails brefs mais complets sur l'expérience suédoise, insistant sur les leçons positives et négatives que le Canada peut tirer de cette expérience. Comme la Suède, le Canada doit se mesurer avec un contexte mondial en pleine transformation et faire face à une plus grande instabilité des taux de change parmi les principaux pays industrialisés. Comment un petit pays réussit-il à maintenir la stabilité des prix pratiqués à l'intérieur de ses frontières, à garder des taux élevés de croissance économique réelle et un taux de chômage réduit? En dehors de la période des années 70, la Suède a plutôt bien réussi à atteindre ces ambitieux objectifs économiques. Étant donné les analogies qui existent entre les deux économies, l'expérience suédoise pourrait suggérer au Canada les moyens de parvenir à une meilleure performance économique tout en évitant certaines des fautes commises et des situations problématiques rencontrées.

Introduction

Like Canada, Sweden is a small open economy, relying heavily on international trade and sensitive to shifts and changes in the world economy. Also, it is a country with a unique and experimental approach to government policy and to relations between government, business and labour, an approach that has led to its development as something of an economic and social miracle over the last few decades. However, after decades of rapid growth, the Swedish economy experienced the most severe crisis in its history during the 1970s.

In the wake of the 1973-74 oil shock and subsequent international economic stagflation, growth slowed dramatically, and Sweden became a nation living far beyond its means, resulting in a substantial government deficit and heavy borrowing from abroad. In recent years, the government has undertaken a dramatic reversal of its economic and industrial policies, and Sweden has again succeeded in restoring its competitiveness, profitability and current external equilibrium, as well as dramatically improving its economic performance. In the process, Sweden has gone further than most other countries in restructuring its base industries and has accomplished a significant reorientation of its industry toward more high-technology goods. Moreover, it has managed to achieve this without incurring a major rise in unemployment. Thus, it seems that Sweden can offer useful comparisons and contrasts with Canadian experience and serve as a reference for Canadian policy debates.

Specifically, this study has three major purposes. First, it provides a convenient summary of economic and industrial developments in Sweden, both historical and in the more recent past, assessing the country's areas of strength and weakness and the reasons for its successes and failures. Second, it explores the Swedish debates about and

approaches to economic and industrial policy, including relations between business, government and labour, in the context of how decisions are made in a small country in a dynamic world economy. Third, the study draws conclusions from Sweden's experience for Canada, with special emphasis on the implications for public policy and business decision making.

Not all aspects of the Swedish economy and industry can be covered in a short study written primarily for a Canadian audience, so the selection of topics has been made with these three purposes in mind. Even so, simple comparisons and contrasts can be highly deceiving. The applicability of findings of a study of one country to another depends on the degree to which the two countries are similar in economic structure and in political and institutional arrangements. For this reason, it seems useful to identify some major areas of similarity and difference between the two countries. Most of these topics are also explored further in later chapters.

Structural, Political and Institutional Comparisons: Sweden and Canada

In a number of important respects, the Swedish economy has many similarities to the Canadian economy, which is one of the reasons why Sweden was selected for study. For one thing, both countries have a relatively small population but are large in terms of geography. Both countries are located in the northern hemisphere, with small home markets, but at the periphery of large international markets.

Another similarity is the degree to which the two countries are relatively well endowed with natural resources. Both countries have historically had reserves of forests, minerals, water resources and fisheries. However, an important difference is that Canada increasingly has become a large oil and gas producer and net energy exporter, while Sweden has always had to rely on external sources of energy. For some two-thirds of its energy consumption today, Sweden is dependent on imported oil.

Still another similarity is that people in both countries have had very high real incomes and living standards in recent decades. Real GNP per capita (based on actual physical quantities and relative prices rather than exchange rates), in the two countries has been roughly comparable and very high, with Sweden being higher than the larger countries with which she trades most actively. Canada, on the other hand, has a real GNP per capita below that of the United States, its major trading partner. In the late 1970s, however, real GNP per capita increased more slowly in Sweden than in the other major industrialized countries, so Sweden's position has tended to slip temporarily behind some of the others.

An important similarity between the two countries in political and institutional terms is that both Sweden and Canada have become welfare states, emphasizing social justice and distributional policies, sometimes at the expense of efficiency and economic growth.

Sweden, however, practises a much more significant degree of income redistribution. The before-tax incomes of professional and managerial groups on the one hand and blue collar, clerical and sales staff on the other are more similar than in Canada. Furthermore, government taxation and social welfare policies have gone much further than in Canada to redistribute income from high-income families and earners to lower-income groups. In fact, the ratios of government expenditures and taxes to GNP in Sweden are among the highest in the world.

There are several other important differences as well. For our purposes, one of the major differences is Sweden's greater degree of export orientation. For example, Sweden has had a higher ratio of exports of goods and services to GNP than Canada.

An important factor associated with this is that Sweden has a history of low tariffs. Early in this century, the Swedish government was already emphasizing free trade and competitive markets. Also, Sweden was one of the founding members of the European Free Trade Association in 1960 and had achieved complete removal of internal tariffs on non-agricultural products by the end of 1966. In early 1973, Sweden became an Associate Member of the European Economic Community, permitting trade in industrial products on a free trade basis in a market now exceeding 300 million people. Its policies thus tended to reinforce market tendencies and encouraged the movement of resources from declining to expanding markets and sectors.

As a result, Sweden ended up not only with a greater degree of export orientation than Canada but also with a very different product and country mix in its exports. A much higher proportion of its exports is in the form of manufactured components and finished manufactured products; in this category, products of the engineering industry (metal goods, machinery, electrical products, transportation equipment and instruments) now account for approximately half of Sweden's exports. The destination of Sweden's exports is also much more highly diversified. Exports to its six major markets (the U.K., West Germany, Norway, Denmark, Finland and France) barely exceed half its total exports, and the U.K., Sweden's largest market, takes only about one-tenth of its exports.

By contrast, Canada historically followed a policy of higher tariff rates on manufactured products, and the composition of Canadian exports is concentrated more heavily in the natural resource area, including partially processed products and ores. Moreover, the market for Canadian exports has become increasingly concentrated in the United States, and the share of exports going to the United Kingdom and other European countries has dropped drastically over the last few decades, despite high rates of economic growth among the countries in the European Economic Community. More than half of Canadian exports have gone to the United States for decades, and in recent years, exports to the United States have accounted for about two-thirds of the country's total exports.

However, Canada has participated in all post-war multilateral tariff reductions and has achieved some tariff reductions from the high rates of the 1930s. Effective tariff

rates have also come down appreciably and were reduced further during the 1980s as a result of the Tokyo Round of the General Agreement on Tariffs and Trade.

Another area of difference between Canada and Sweden is in the field of inward and outward foreign investment. With their specialized ranges of products, Swedish corporations have traditionally sought a local presence in foreign markets for competitive reasons. As a result, Swedish corporations have acquired extensive foreign holdings; in fact, on a per capita basis, Sweden is the most multinationalized country in the world today. Foreign investment and control of industry in Sweden, on the other hand, is comparatively low (around 7 to 8 per cent).

Canada's situation is exactly the opposite. High tariff rates and protected markets have attracted foreign investment in Canada to the extent that today more than half of Canadian industry is foreign-owned or controlled. Since the majority of Canadian firms are either focusing on domestic markets or servicing foreign markets through exports, foreign investment by Canadian firms was relatively limited in the past. More recently, however, there has been a dramatic increase in the rate of direct foreign investment by Canadian companies, especially the more entrepreneurial and rapidly growing smaller companies.

In terms of political and institutional arrangements, an important distinction is that Sweden is a unitary state and has been accustomed to an extended period of consultation between government, business and labour. Characteristic of the Swedish scene since the Social Democratic government took power in 1932 has been the openness and co-operative stance of the government, and the centralization and close co-operation of labour and employer organizations. A dominant consensus has ruled relations between government, labour and employer organizations. The latter part of the 1970s was an exception; at that time, Sweden experienced a period of unstable minority governments, a factor that contributed to hesitancy and uncertainty in selecting policies to deal with the country's economic crisis.

In Canada, there has traditionally been more of an adversary relationship between business on one hand and government and labour on the other. Moreover, the Canadian federal system tends to be relatively decentralized, with the growth of expenditures being much more rapid at the provincial and municipal levels than at the federal level over the last three decades. Also, Canadian business and labour groups are less strong and less centralized than their Swedish counterparts. These differences tend to make it more difficult to have consistent, coherent policies in Canada.

Outline of Study

Chapter 1 expands on this brief review of similarities and contrasts between Sweden and Canada. It gives a selective description of Swedish society, of Sweden's economy, constitution and government, and of the country's geography and population. Where appropriate, comparable data for Canada (and in some cases for other major industrialized countries) are also provided. The selection of material was a difficult task. The desire to give a comprehensive description of Sweden conflicted with the need to

remain relevant and to avoid making the presentation excessively long and difficult to read.

Chapters 2, 3, 4, 5 and 6 are the key chapters in the study. Chapter 2 briefly reviews Sweden's economy and industry from an historical perspective, covering the hundred or so years since the country's industrialization in the early 1870s. The emphasis is on identifying the factors behind its remarkable achievements in industrial development and in economic growth generally. The "Swedish model" is regarded as a key factor in this context. Some of the more severe crises in the country's history are also discussed, for purposes of comparison with the most recent crisis.

Chapter 3 describes the main factors in the crisis of the late 1970s, analyzes events in the Swedish economy up to 1982, and presents alternative interpretations of whether Sweden's crisis reflected disturbances in the world economy or was intensified by policies and developments within Sweden itself. The chapter reviews macroeconomic policies and their implications for Sweden's external and internal balance. It also discusses the impact of non-economic factors – political and psychological – on the crisis and how these factors contributed to the collapse of the Swedish model.

Chapter 4 focuses on industrial policies and the options for a more active government role in industrial policy and planning. It reviews Sweden's stance on industrial policy prior to the crisis and discusses planned responses and options in the face of the country's economic decline in the late 1970s. The government's failure to formulate and implement a viable strategy is then analyzed in the context of economic and political forces.

Chapter 5 deals with developments in Sweden since 1982. It describes the new strategy embarked upon by the returning Social Democratic government in 1982 and looks at the results and future prospects arising from this strategy. In particular, Sweden's renewed cost competitiveness and the successful structural transformation of industry are explored. The chapter concludes with a look at the changing psychological and political situation in Swedish society – towards shared values, co-operation, stability and optimistic outlook – and discusses Sweden's new economics of the "third way".

Based on the Swedish experience, Chapter 6 presents the authors' interpretation and assessment of an appropriate balance between macroeconomic and microeconomic policies and the measures that can be adopted in a smaller open economy to achieve the required flexibility and adaptability in a dynamic world market. Following a more direct comparison of policy and performance in Sweden and Canada, this chapter emphasizes some of the lessons for Canada that can be drawn from the Swedish experience.

Chapter 1

Sweden – A Bird's-Eye View

The purpose of this chapter is to sketch the main facts about Sweden's geography, population, economy and government.[1] To provide a comparative perspective, data for Canada are provided regularly; in some cases, the comparisons also include other major industrialized countries.

Geography and Population

Sweden is a northern country, running north to south. Its southern tip is at about the same latitude as the junction of James Bay and Hudson Bay in Ontario or between Edmonton and Peace River, Alberta. Its northern tip extends north of the Arctic Circle, about in line with Inuvik and Aklavik, in Canada's Northwest Territories. The Gulf Stream provides a moderating influence on temperature, as it runs north of the United Kingdom and along the western and northern coasts of Norway, Sweden's western neighbour.

The land area of Sweden is about one-twentieth the area of Canada, half the area of Ontario and a little larger than Newfoundland. It is roughly the same size as the state of California and about twice the size of the United Kingdom in area.

The population is about 8.4 million, well below the Canadian population of 25.4 million in 1985. Its population density of about 19 persons per square kilometre is somewhat less than the United States, but well below Japan and most of the countries of northern Europe. The population density in Sweden is about six times the Canadian

level. (See Table 1.1 for selected basic indicators for Sweden, Canada and a number of other industrialized countries.)

Table 1.1
Selected Population Indicators, Sweden and Selected Countries, Various Years

	Sweden	Canada	Japan	U.K.	U.S.A.
Population (millions), 1985	8.4	25.4	120.8	56.5	239.3
Area (000s km^2)	450	9,976	372	245	9,363
Population Density (persons per km^2), 1985	19	3	324	231	26
Urban Population as Percentage of Total Population, 1985	86	77	76	92	74
Number of Cities of over 500,000 People, 1980	3	9	9	17	65
Urban Population in Cities of Over 500,000 People (per cent), 1980	35	62	42	55	77

Source: The World Bank, *World Development Report 1987* (New York: Oxford University Press, 1987), pp. 203 and 267.

More than half the total land area of Sweden is covered with forests, while 10 per cent is cultivated. The country's most densely populated area is a belt that runs roughly from Stockholm to Gothenburg and down the west coast to Malmö. Northern Sweden is very sparsely settled, except for the coastal regions.

About 86 per cent of the population in Sweden lives in urban areas, a higher proportion than in North America or Japan. There are many cities in Sweden with populations under 500,000, but the proportion of the Swedish population living in cities with more than 500,000 people is only about 35 per cent, well below all the other countries shown in Table 1.1.

Sweden is basically an ethnically homogeneous society with one language. The Lapps, originally a nomadic people living in the North, for a long time were the only minority group. However, the number of immigrants in the population has increased steadily. Today, about 7 per cent of the population is made up of immigrants, of whom almost half have become Swedish citizens. The proportion of Canada's 1981 population born outside Canada was over 15 per cent (Census of Canada, 1981), and this proportion has likely increased since then. The Canadian population is less homogeneous than

Sweden's, with the French and Anglo-Saxon groups being added to by growing numbers from the rest of Europe and Asia.

The Swedish Economy

At the beginning of the 1970s, Sweden had a unique position among the small and intermediate-sized economies of the world. Together with Canada, it had the second highest level of real GDP per capita of any country in the world, exceeded only by the United States (Table 1.2). It was widely regarded as an internationally competitive producer of certain industrial products and a pioneer in labour market practices and policies and social policies of income redistribution. However, in the late 1970s a series of economic problems emerged, and for a while Sweden encountered large central government budget deficits, balance-of-payments deficits and domestic inflation. The previous consensus on social issues, as well as relations between business and government and labour, were also temporarily in disarray. An important part of subsequent chapters will be to review these developments, assess the major reasons for the changes and analyze the strategies being used by the private and public sectors to deal with these problems. The goal here is the more limited one of providing a broad brush treatment of some of the main features of Sweden's economy.

Table 1.2
Real Gross Domestic Product Per Capita, Selected Countries
(United States = 100)

	1960	1970	1980	1986
Sweden	66	76	76	76
Canada	71	77	91	91
France	52	63	72	69
West Germany	61	68	74	75
Japan	28	55	65	71
United Kingdom	66	64	65	66

Source: Bureau of Labor Statistics, *Comparative Real Gross Domestic Product, Real GDP per Capita and Real GDP per Employed Person, Thirteen Countries, 1950-1986* (Washington: April 1987), pp. 15 and 16.

Sweden had one of the highest levels of real GDP per capita for most of the third quarter of this century; it was higher than that of such larger countries as the United Kingdom, France and West Germany. In 1970, it reached the highest level in relation to the United States, about 24 per cent below the United States, after which the gap between the two countries in real GDP per capita basically remained stable (Table 1.2). By

contrast, Japan, West Germany and France continued to increase real per capita GDP more rapidly than the United States, so they have moved closer to Sweden than they had been in the 1960s and 1970s. Canada, with particularly impressive real GDP per capita growth in the wake of the two oil crises, had clearly moved ahead of Sweden in the 1970s and by 1980 had reached its highest level of the whole post-war period, only nine percentage points behind the United States.

The level of output per man hour in Sweden's manufacturing industry continued to increase during the 1970s, albeit at a slower rate. In 1984, Sweden's level of real output per hour was clearly higher than Canada's, but lower than that of the United States and Japan, as shown in Table 1.3.

Table 1.3
Selected Economic Indicators, Sweden and Selected Countries, Various Years

	Sweden	Canada	Japan	U.K.	U.S.A.
Output Per Man Hour in Manufacturing (U.S.A. = 100), 1984	79	72	87	40	100
Distribution of GDP (per cent), 1985					
Industry	31	30	41	36	31
Manufacturing*	21	16	30	22	20
Services	66	67	56	62	67
Agriculture	3	3	3	2	2
Exports of Goods and Services as a percentage of GDP, 1985	35	29	15	29	7
Total Taxes as a percentage of GDP, 1982	50.3	34.9	27.2	39.6	30.5
Public Enterprise Share of Employment (per cent), average 1975-1979	8.0	4.5	n.a.	8.2	1.6

* Because manufacturing is generally the most dynamic part of the industrial sector, its share of GDP is shown separately.

Source: D.J. Daly and D.C. MacCharles, *Focus on Real Wage Unemployment* (Vancouver: The Fraser Institute, 1986), p. 67; The World Bank, *World Development Report 1987* (New York: Oxford University Press, 1987), pp. 207 and 211; P-M. Meyerson, *Eurosclerosis – The Case of Sweden* (Stockholm: The Federation of the Swedish Industries, 1985), p. 76; and P. Saunders and F. Klau, *The Role of the Public Sector*, OECD Economic Studies No. 4 (Paris: 1985), p. 78.

The distribution of GDP by broad industry groups is also shown in Table 1.3. The proportion of GDP accounted for by the industrial sector in Sweden is about the same as in the United States and Canada, but lower than in Japan and the United Kingdom. For manufacturing, the more dynamic part of the industrial sector, the share of GDP in Sweden is comparable to that in the United States and United Kingdom, but only about two-thirds of that in Japan. Canada clearly has the lowest proportion of manufacturing of the countries listed in Table 1.3. In services and agriculture, the proportions are roughly comparable for Sweden, Canada and the United States.

International trade is quite important for Sweden, as it is for most of the small and intermediate-sized high-income countries. Exports of goods and services from Sweden in 1985 were about 35 per cent of GDP, higher than the figures for Canada, the United States, Japan and the United Kingdom (Table 1.3), but lower than those for some of the other smaller European countries, such as Norway, Belgium and the Netherlands (The World Bank, 1987, p. 211). This reflects Sweden's small size and the tendency for smaller countries to have higher ratios of trade to GDP. It also reflects the historical Swedish policy of low tariffs on imports.

There are also a number of interesting aspects to Sweden's domestic economy. One feature is the narrow range of incomes between different industries and occupations. For example, wage spreads around the industrial average have narrowed significantly in Sweden over the last two decades (Skandinaviska Enskilda Banken, 1982, p. 17). "Wage solidarity" is a policy of the Swedish trade unions, meaning that the same wage should be paid for the same job in all companies, regardless of the productivity or profitability of the individual enterprise. The result is that income differences are a less effective means for providing information and incentives to facilitate the shift of labour – the key factor of production in any economy – between alternative uses. In these circumstances, retraining, aids to mobility, and a much more active labour market policy become essential instruments for shifting labour between alternative uses.

In addition, social welfare measures and taxation are used actively to achieve a further redistribution of income. In 1982, the ratio of total taxes to GDP was slightly over 50 per cent, clearly exceeding levels in Canada and the United States, as shown in Table 1.3. In fact, taxes account for a higher portion of GDP in Sweden than in any other country in the western world. Almost half of all government tax revenue is returned to private households in the form of transfer payments to create a more equal distribution of income after taxes and transfers (Wadensjö, 1979, p. 103). Marginal personal income tax rates in Sweden are also the highest in the world (Svenska Handelsbanken, 1980, p. 25).

Another interesting feature of Sweden's economy are its co-operative and public business enterprises. About 85 per cent of all Swedish companies with more than 50 employees are privately owned (of which foreign-owned companies account for 7 to 8 per cent), while the remainder are co-operative or state-owned companies, each contributing some 7 to 8 per cent of employment. Consumer co-operative ownership plays an important role in the retail sector, particularly in the food, consumer products and petroleum industries. Producer co-operative ownership is dominant in the dairy and

meat products sectors and important in the rest of the food industry and the pulp and paper industry.

Traditionally, government ownership in Sweden was restricted to public utilities, transportation, the raw material-based industries and mining. In the late 1970s, public ownership expanded into the commercial steel sector and the shipyards; this was regarded as a way to preserve employment. Today, in these six sectors, more than half the goods and services produced originate from firms where the government owns or controls 50 per cent of the equity or more. OECD estimates suggest that between 1975 and 1979, the public enterprise share of employment averaged 8.0 per cent, up from the 1970-74 average of 7.1 per cent. Sweden's level of public enterprise employment is thus slightly lower than United Kingdom's, but higher than levels in Canada and, in particular, the United States.[2] However, the importance of public enterprise investment in relation to GDP during 1975-79 was slightly higher for Canada, at 3.7 per cent, than for Sweden, at 3.5 per cent (Saunders and Klau, 1985, pp. 76-77).

How Sweden Is Governed

Sweden is a parliamentary democracy based on the principles of universal and equal suffrage. The King—currently Carl XVI Gustaf, who ascended the throne in 1973—is head of state and has only representative duties. He does not have any real political power, although he does have some influence because of the popularity of the royal family among the general public.

Political power rests with the Cabinet. The Prime Minister is selected by the speaker of the Riksdag (Parliament), after consultation with the different party leaders. At his side are a number of cabinet ministers, most of whom head ministries. Government ministries in Sweden are fairly small, with approximately 100 persons in each. Administration of government policy is carried out by the Central Administrative Boards, which holds a fairly independent position vis-à-vis government ministries.[3] County and Municipal Councils provide regional and local decentralization of certain functions. The primary responsibility of the County Councils is the public health system, while the municipalities provide such basic services as social welfare, education, local public transportation, and public works and utilities.

Swedish democracy is based upon a multi-party system. The political parties can usually be divided into a socialist and a non-socialist block. The socialist block is made up of the Social Democratic Labour Party and the Communist Party, while the non-socialist group consists of the Centre Party, the Liberal Party and the Moderate Coalition Party.

The oldest and the largest of the political parties is the Social Democratic Labour Party, formed in 1889. It draws most of its support from industrial workers, although it also has a large group of followers among white collar employees. Traditionally, party policy has emphasized employment issues, such as job security and the right to employment. More recently, the Social Democrats have also been supportive of a wage-earner fund system—an equity investment through trade union organizations in private companies—to ensure an adequate supply of capital for company investment programs.

The Communist Party, the smallest party in Parliament, also receives its principal support from industrial workers, and advocates the introduction of a socialist system with public ownership of the means of production. The Centre Party initially represented farming interests, but it currently also receives a good deal of support from environmentalist groups. The Liberal Party combines support for free enterprise with a commitment to social change and a social policy to protect the weaker groups in society. It draws most of its support from white collar workers and employers. Finally, the Moderate Coalition Party emphasizes such policies as free enterprise, a strong defence, and the rights of the individual.

A parliamentary election is held every three years, on the third Sunday of September. During the past few decades and until 1976, Sweden had a series of strong governments, with the Social Democrats in power for 44 years either as the sole governing party or in coalition with other parties. The 1976 election resulted in a majority for the non-socialist block, with a coalition between the Centre, Conservative and Liberal parties. This government resigned, however, in 1978 over the issue of energy, after which the Liberal party formed a minority government with approximately 11 per cent of the seats in Parliament. The 1979 election resulted in another three-party non-socialist government, with the Conservative, Centre and Liberal parties. This politically unstable period ended in 1982, when the Social Democratic Labour Party returned to power. In the last election in 1985, the Social Democrats continued to receive the confidence and support of voters.

Notes

1. For an excellent summary for some of this material on Sweden see Skandinaviska Enskilda Banken (1985). For a more comprehensive account of Swedish society, particularly its economic and political life, its institutions and organizations, and its people and culture see Wadensjö (1979). The brief introduction to Sweden presented in this chapter is, among others, based on these two publications.

2. Of the 14 countries for which data are available, Austria ranks highest, with 12.4 per cent of the employed labour force engaged in public enterprises. West Germany's public enterprise employment, at 7.9 per cent, is comparable to Sweden's (Saunders and Klau, 1985, pp. 77-78).

3. A comprehensive description of the organization and procedures of the central government in Sweden is provided by Vinde and Petri (1978).

Chapter 2

The Swedish Economy and Industry – A 100-Year Review

It took the Swedes less than a century to transform their country from a land of hungry peasants to one of the world's most well-developed and prosperous societies. On its way to this economic and social miracle, Sweden was for many years the focus of international debate and interest and has been referred to in admiring terms as "the middle way" (Childs, 1961), "the progress machine" (Jenkins, 1969), "the prototype of a modern society" (Tomasson, 1970) and so on. At the culmination of this progress, in 1974, *The Economist* praised the country's achievements and described the Swedes as "the world's richest people" (*The Economist*, April 13, 1974, pp. 5-48). As the Swedish economy faced the 1980s, however, the situation was in strong contrast to its century-long record of positive development, trying to recover from one of the longest and deepest crises in its economic history.

The purpose of this chapter is twofold: to describe briefly and to analyse Sweden's economic and industrial development in historical perspective and trace the factors behind the country's exemplary achievements; to provide a background for analysis in subsequent chapters of events in Sweden in the more recent past, particularly during the crisis years of the 1970s. In this context, the major economic crises in the country's earlier history are of special interest for purposes of contrast and comparison with the most recent crisis.

The period covered in this historical review is from 1870 to the mid-1970s. The more recent developments in Sweden, including the crisis of the 1970s, are dealt with in the following chapters.

Economic and Industrial Development: 1870-1975[1]

Until the mid-1970s, Sweden's economic growth and performance were spectacular in international terms, as can be seen in Table 2.1. For the period 1870-1976, GNP per capita grew more rapidly in Sweden than in any other country, with the possible exception of Japan. Similarly, the country's industrial productivity increase was among the highest of the countries listed in Table 2.1. Furthermore, during this period, Sweden deviated from the norm in the rest of the developed world by experiencing far more stable development, with fewer and smaller cyclical fluctuations around its underlying growth trend.

Table 2.1
Sweden's Economic and Industrial Development in International Comparison, Selected Countries, 1870-1976

	GNP	GNP/ Capita	Industrial Production*	Industrial Production/ Employed*
	(annual percentage change)			
Sweden	3.9	2.5	4.1	2.8
Canada	n.a.	n.a.	4.2	2.5
France	2.0	1.6	2.6	2.3
West Germany	2.6	2.0	3.7	2.1
Italy	2.3	1.6	4.2	3.0
Norway	2.8	2.0	3.8	2.8
United Kingdom	2.0	1.5	2.4	1.9
United States	3.6	2.0	3.9	2.8

* Figures on industrial production are for the period 1870-1976; industrial production/employed is for 1890-1975.

Source: S. Carlsson, E. Dahmén, A. Grufman, M. Josefsson and J. Örtengren, *Teknik och industristruktur – 70-talets ekonomiska kris i historisk belysning*, IUI-publikation/IVA-meddelande 218 (Stockholm: Almqvist och Wiksell International, 1980), p. 24.

Given the Swedish economy's dependence on foreign trade, it is surprising that Sweden's growth pattern since the 1870s (and until quite recently) remained relatively untouched by international stagnation and recession. Not being involved in wars, and thus being able to keep its industry intact, is a major contributing factor, as evidenced by the modest cyclical variations in the country's economy during and between the two world wars. An additional explanation is that Sweden's economic policy has been more successful than that of other countries. The country's labour market and stabilization

policies, and particularly the Swedish system of investment funds for economic stabilization,[2] are often considered instrumental in this respect. It is suggested that because of these policies Sweden managed, in a timely and effective way, to shift the emphasis to domestic markets in periods of stagnation or decline in its export markets.

Since World War II, the growth of the public sector – in terms of service production and transfers – also appears to have contributed substantially to the stable and smooth development of the Swedish economy. Full employment has increasingly become the overwhelmingly important socio-political goal of Swedish society, and public sector expenditures have been seen as a critical mechanism in maintaining (and improving) employment levels. As a result, since the 1950s public sector expenditures have been growing at an accelerating rate, and by 1975 their share of GNP had doubled (from 26.5 per cent in 1950 to 51.0 per cent in 1975). This put Sweden's public expenditures among the highest in the western world (Waara *et al.*, 1978). As Table 2.2 illustrates, however,

Table 2.2
Total Public Sector Expenditures' Share of GNP, Sweden and Selected Countries*

	Total Public Sector Expenditures/GNP (per cent)		
	1950	1965	1975
Sweden	26.5	35.5	51.0
Austria	25.0	33.8	40.3
Canada	22.1	29.3	41.2
Denmark	19.3	30.1	47.6
Finland	25.8	31.5	37.2
France	28.3	36.2	42.4
West Germany	30.2	35.0	45.6
Italy	23.0	33.4	43.1
Netherlands	27.1	40.9	54.3
Norway	24.2	36.4	46.5
United Kingdom	34.2	35.1	46.1
United States	22.3	28.8	36.2

* "Total public sector expenditures" include public consumption and investments, as well as public transfer payments.

Source: S. Andersen, *Efter hundra år av tillväxt – Sveriges ekonomiska läge i historisk belysning* (Stockholm: Sekreteriatet för framtidsstudier, 1980), p. 24.

such an increase in public sector expenditures also occurred in a number of other countries. The same trend appears to have taken place in most other small countries, particularly those with significant dependence on foreign trade, for example, the Netherlands, Norway and Denmark.[3]

The spectacular improvement in the standard of living that has taken place in Sweden during the hundred or so years since the 1870s is, however, primarily a result of the emergence and exemplary development of Swedish industry. Industrialization made its breakthrough in the late 1800s, and since then Sweden has transformed itself from an agricultural society to one of the most industrialized countries in the world. By the mid-1970s, the share of GNP accounted for by the industrial sector equalled that of the agricultural sector in 1870 (about one-third of GNP).

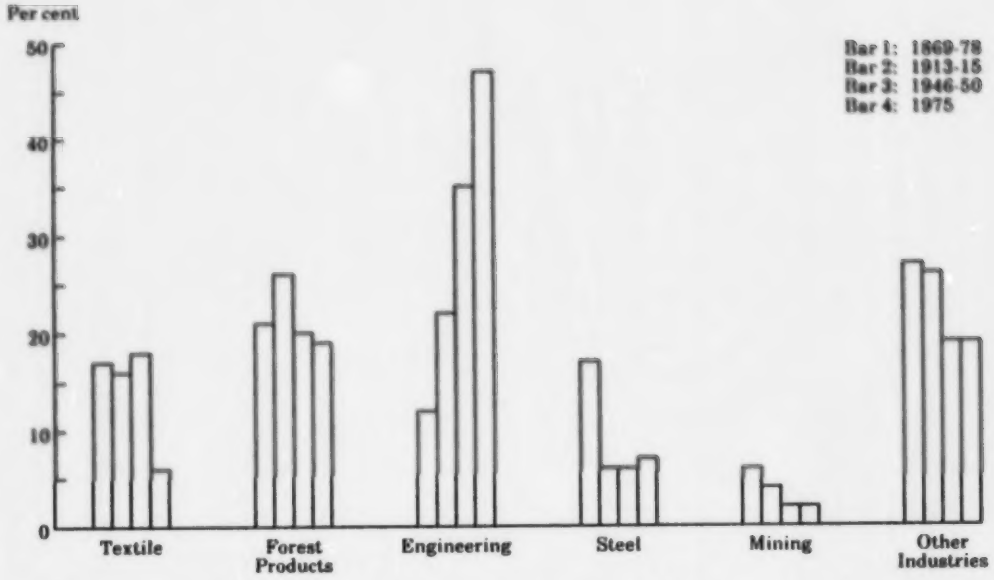
Three factors have been identified as critical to the country's remarkable industrial development: rich raw material deposits, rapid advancements in technological development, and a strong international orientation (Ohlsson, 1969).

In the late 1800s the export of grain, timber and steel dominated Sweden's foreign trade – nine-tenths of all exports were in these sectors. As late as the end of the 1950s timber, pulp, paper, iron ore and steel still accounted for half the country's exports. By 1977, the share of total exports accounted for by these products had declined to one-third – however, Sweden still exported three-quarters of its iron ore and two-thirds of its forestry products. Thus, without access to world markets, much of the country's natural resources would have had to remain unexploited.

Sweden is still highly dependent on firms established during its early industrialization, between 1870 and 1913. Many of these firms, which today are among Sweden's largest and most progressive industrials, were formed as a result of genuine Swedish innovations, such as Wingquist ball bearings, Eriksson telephones, Dalen beacon lights, and so on. This innovative climate characterized Swedish industry in subsequent periods as well. In virtually all areas, Swedish firms have either maintained or strengthened their technological competence and competitiveness over the years. In fact, it appears that Sweden managed to close the technology gap with the United States in a growing number of areas during the 1950s and 1960s. In the more recent past, however, with the exception of a few uniquely Swedish innovations (such as high voltage power transmission, some shipbuilding technologies, and iron ore sintering), new technologies have been acquired from abroad. The strength of the Swedish industry has thus increasingly become its worldwide exposure to foreign competition and to new technologies, and its ability to adopt new technologies rapidly, to develop them further and to exploit them commercially (Ingenjörsvetenskapsakademien, 1979; Carlsson, 1980).

A characteristic of Sweden's industrial development has been rapid and sweeping structural changes. As Figure 2.1 shows, major shifts have taken place between industrial sectors. The most significant trend has been the emergence and rapid growth of the engineering sector. By the mid-1970s, this sector accounted for nearly half of all employment in industry. Other examples of major sectoral shifts include the decline of the metal and steel industry and the increasing importance of the paper and pulp

Figure 2.1
Distribution of Industrial Employment by Sectors, 1869-1975



Source: B. Carlsson, E. Dahmen, A. Grufman, M. Josefsson and J. Örtengren, *Teknik och industristruktur – 70-talets ekonomiska kris i historisk belysning*, IUI-publikation/IVA-meddelande 218 (Stockholm: Almquist och Wiksell International, 1980), p. 38.

industry at the beginning of this century; the stagnation of the timber industry between the two world wars; and the marked decline of the textile industry in the 1950s.

Historically, Sweden's export profile has closely followed that of its industry structure and it has undergone similarly significant shifts over time (see Figure 2.2). Indeed, as has been suggested, the ability of Swedish industry to adjust structurally to shifts in demand has probably been the single most important factor in its successful export performance over time.

As Table 2.3 illustrates, during the period 1870-1965, Sweden's share of world exports increased continuously. This trend appears to have reached its zenith in 1965, however, after which Sweden's export growth started to fall behind world export growth. Sweden's export of goods as a percentage of GNP remained basically unchanged, however, and fluctuated, as previously, between 15 and 20 per cent of GNP (Ohlsson, 1969). An exception was the 1974-75 period, during which there was a sudden jump in exports of goods, with the result that exports' share of GNP increased temporarily to around 30 per cent.

Table 2.3
Growth in World Exports and Swedish Exports, 1870-1974 (current prices)

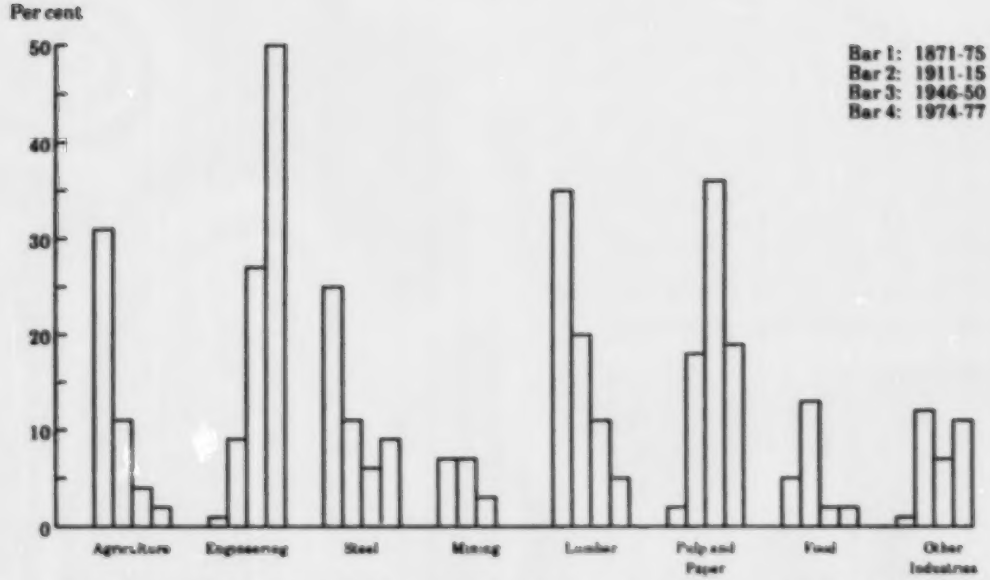
	World Exports	Swedish Exports
	(annual growth, per cent)	
1870* - 1913	3.0	3.9
1870* - 1890	2.0	3.1
1913 - 1938*	0.8	3.4
1921 - 1938*	0.1	3.1
1938* - 1966	8.2	9.5
1948* - 1966	7.3	11.3
1965 - 1970	10.8	10.7
1970 - 1974	28.3	17.1

* For Sweden's export growth, 1871, 1939 and 1946 were used instead of 1870, 1938 and 1948 respectively.

Source: L. Ohlsson, *Svenskt industriarbete i en internationell ekonomi. En framtid mer byggd på kunskap och mindre på råvaror?* (Stockholm: Sekreteriatet for framtidsstudier, 1978).

With the exception of most of the 1870-1910 period, when Sweden was a major capital importer, the country's current account was closely related to its export performance. From 1910 to 1965, with only a few interruptions, Sweden had a fairly

Figure 2.2
Distribution of Exports by Industry Sectors, 1871-1977
(current prices)



Source: B. Carlsson, E. Dahmen, A. Grufman, M. Josefsson and J. Ortengren, *Teknik och industristruktur – 70-talets ekonomiska kris i historisk belysning*, IUI-publikation/IVA-meddelande 218 (Stockholm: Almquist och Wiksell International, 1980), p. 45.

substantial surplus in its current account. Although Sweden resembled other small countries in having a negative trade balance for goods, its export of goods was large enough to offset this negative balance through the country's positive service account (primarily as a result of considerable shipping revenues).

Economic Crises in Historical Perspective

Swedish economic history is not, however, without its share of strains and crises. The hundred years after 1870 saw many of the crisis phenomena that characterized the period after the mid-1970s. In fact, it appears that the earlier crises were sometimes more profound and created more severe strains on the economy than the more recent one did.

Erik Lundberg, one of Sweden's prominent economists, has identified five typical crisis phenomena that have occurred in Sweden's economic history: foreign exchange crises, inflationary crises, depressions and recessions, structural crises and financial imbalances. In addition, as Lundberg points out, on occasion there have been more substantial changes in the political climate, also leading to political crises rather than purely economic ones.[4]

Various combinations of these crisis phenomena were concentrated in certain periods; the following three are of particular interest from a comparative perspective:

1. The inflation, deflation and foreign exchange crisis after World War I, that is, 1919-23.
2. The Great Depression during the early years of the 1930s, with a high level of unemployment and a foreign exchange crisis.
3. The years 1945-49 after World War II, with inflation, foreign exchange crisis, and political challenges to the economic system (Lundberg, 1983a, p. 52).

These three crisis periods will be reviewed briefly in terms of their causes and remedies.

During World War I there was a sharp increase in the demand for Swedish products abroad, resulting in accelerating inflation. By 1919 this sharp inflation had provoked a foreign exchange crisis, followed by a significant deficit in the current account. At the same time, industry had difficulties adjusting to the emerging demand patterns of the post-war period. Virtually overnight, these structural problems, combined with an emerging international recession and fueled by the government's deflationary economic policy, converted the sharp inflation of the previous few years to severe deflation in 1920. Within a year, prices fell by more than 50 per cent. In the course of the ensuing deep depression of the early 1920s, financial imbalances became a problem as well. Budget deficits during these years were, however, quite moderate and, at worst, they amounted to about 2 to 3 per cent of GNP.

This so-called deflation crisis was one of the most severe in the country's economic history. Still, Sweden recovered from it remarkably rapidly. During the subsequent boom, which had already started by 1922, timely and effective structural adjustments in

industry led to a substantial increase in industrial production and in exports of Swedish products. Within two years the current account was back in surplus, and a stable high economic growth rate followed for the rest of the decade.

The next crisis, in 1931-32, was caused mainly by the international depression, which started in the United States in 1929. As a result of this depression, Sweden saw a marked drop in industrial production of about 25 per cent, while exports declined by more than 30 per cent. Unemployment increased sharply, and budget deficits once again reached about 2 to 3 per cent of GNP. Around the same time, in 1931, Sweden also decided to give up the gold standard; as a consequence, the krona was in effect depreciated by about 25 per cent.

Within a year or so, the undervalued krona, together with the government's expansive economic policy, resulted in an exceptionally rapid recovery of the Swedish economy. Industrial production increased by about 10 per cent per annum. By 1933 the international depression had also started to weaken, which further contributed to strengthening the Swedish economy. Although world exports had a more modest recovery, because of the protectionist attitudes that emerged in the course of the Great Depression, Sweden's export performance was greatly improved. By the end of the 1930s, world exports still had not regained their 1929 level, but Sweden's exports had increased by over 20 per cent. In contrast to the export-led growth of the 1920s, however, much of the growth in the economy during the 1930s was related to a sharp expansion of domestic markets.

The crisis following World War II was less severe than those of the 1920s and 1930s, but it nevertheless resulted in extensive demands for readjustment and structural adaptation. At the end of the war, Sweden's economy was almost entirely closed and self-sufficient – and unprepared to meet the new post-war requirements of competition and demand. However, by 1947, these structural imbalances were largely swept away in an atmosphere of optimism and expansion. It seems, as concluded by Lundberg, that "the rapid growth in real GNP itself provided the economy with considerable ability to adapt itself through the transfer of idle production resources to vital areas of expansion" (1983a, p. 53).

At the end of the war, with the weakened competition abroad, there was an enormous increase in demand for Swedish products both domestically and internationally. This demand-pull on the economy was reinforced by the government's generally expansive economic policy. As a result, prices and wages increased sharply in 1946-47. In addition, because imports grew faster than exports, there was also a substantial deficit in the current account in 1947. This inflation and foreign exchange crisis was overcome at first with controls and wage-freeze agreements, followed by a significant depreciation of the krona – by 30 per cent against the U.S. dollar in 1949.[5] Shortly thereafter the current account was back in surplus, and the price and wage inflation was eliminated almost entirely.

The crisis in 1945-49 was not, however, purely economic but political as well. It was a "crisis in the market economic system" (Lundberg, 1983a, p. 57). The Social Democrats, arguing that the stabilization policy was not working well and encouraged by

their experience with a successfully regulated economy during the war years, focused their post-war program on the need for change in the market economic system. This political crisis was resolved effectively after the 1949 election, which was a considerable success for Bertil Ohlin and his Liberal Party. By that time the recovery of the Swedish economy was well under way, and planned economy ideas simply disappeared from the political arena.

Thus, earlier crises in the Swedish economy resulted in considerable demand for adjustments, including quite substantial structural adaptations. On these occasions, however, Sweden recovered exceptionally quickly from economic imbalances – within a few years the economy was back on track. Stabilization policy thus proved remarkably successful in these earlier periods.

The Rise of the Swedish Model

The basic trend in Sweden's economic development has been the same as for other industrialized western nations. Economic growth has been a common denominator of all of them, as have the characteristic stages in their development, from the primary (agriculture), through the secondary (industry), to the tertiary (service) sector. However, Swedish development has two distinctive features:

- Over a one hundred-year period, Sweden's economy grew more rapidly than that of any other country (with the possible exception of Japan); and
- in comparison with other countries, Sweden had more stable economic and industrial development, with fewer and smaller cyclical variations.

Although growth in Sweden was exceptional between 1890 and 1913, the two decades following World War II were the most progressive in the country's economic history. Several factors underlie this rapid post-war growth in Sweden, as they do in virtually every other industrialized western economy. They include:

1. The large technology gap that existed between the United States and the other industrial nations after World War II.
2. The re-emergence of free trade and free capital movements, which led to a reallocation of resources and to a substantially improved international division of labour, resulting in increased productivity. In fact, a large proportion of the rapid GNP per capita growth in Europe in the 1960s must be attributed to the lowering of trade barriers within the European Economic Community and the European Free Trade Association.
3. The rapid growth in demand for certain mass-produced consumer durable goods, such as automobiles and television sets, which led to the introduction of large-scale capital-intensive technologies in the industrialized world.
4. Between 1950 and 1977 the share of the total labour force in agriculture (which had large pools of relatively unproductive labour) diminished from 48

to 12 per cent in Japan, from 43 to 16 per cent in Italy, and from 22 to 6 per cent in Sweden, with similar changes in other countries. Thus, other sectors could expand without undue pressure on wage rates.

5. The re-establishment of convertible currencies and stable exchange rates, which created stability during the first 25 years of the post-war period.

6. Throughout the post-war period, and until the oil crisis of 1973-74, rapid economic growth could take place in the industrialized countries with low energy prices and ample supplies.[6]

To these factors can be added some others specific to Sweden, particularly if one looks at the country's development over a longer time perspective. One such factor was that Sweden had the good fortune to stay out of wars and thus experienced no wartime destruction. This generated growth and stability in the Swedish economy during the wars through domestic demand and consumption and, immediately after the wars, through the rapidly increased international demand for Swedish products.

As pointed out earlier, of utmost importance for Swedish economic growth has been the joint effects of the country's raw material base, advances in technology by Swedish industry, and the aggressive international outlook of its corporations. Sweden had participated vigorously in international trade from the beginning of its industrialization and thus was able to reap the full benefits of its great raw material resources early in its development. Similarly, early access to international markets was imperative for the growth and development of many of today's technology-based large multinationals.

Rapid technological change has also played an important role in Sweden's exemplary economic development. Advances in technology meant continuous requirements for structural adjustments in industry, and Swedish corporations responded well to these demands. They had the foresight and the ability to search out, acquire and apply new technologies and, increasingly, to shift the emphasis from raw material-intensive, to capital-intensive, and, finally, to knowledge-intensive sectors. This, among other factors, has also led to increased forward integration in virtually all industries.

The government's economic and social policies have also been instrumental in the country's economic and industrial achievements. Successful stabilization policies have effectively turned even the most severe crisis into rapid recovery, as was the case after the two world wars and during the Great Depression. These and other successful policies, which were often considered experimental and bold at the time, led to the emergence of the widely admired "Swedish model" of the 1950s and 1960s.

In a more narrow sense, the Swedish model refers to conditions in the Swedish labour market with respect to wage settlements and labour disputes (Lundberg, 1981). Employers' and employees' organizations negotiated freely, without government interference, but with an inherent sense of responsibility for the country's general economic development. This included a common acceptance of free competition and free

international trade and sufficient profitability in industry to ensure industrial growth and productivity.

The economic nucleus of the Swedish model was the EFO model, which in essence was a norm or mechanism for wage policy and real wage formation. According to the model, the basic premise shared by all parties in the Swedish labour market was that the equilibrium condition ultimately concerned the balance-of-payments. Thus, within given exchange rates (according to the Breton Woods system[7]), the labour market organizations' economic experts – the so-called EFO-group – were to interpret the margins available for wage increases in the export industries in the light of international competition and competitiveness. That is, the export industry set the standards, leading wage development, while wages in the non-tradable and public sectors were adjusted accordingly to keep them comparable (Lundberg, 1981, p. 15).

In a wider sense, however, this model or concept embodied not only labour market policies but also other social-political ambitions and reforms. It consisted of four main ingredients:

- A fairly tight fiscal policy.
- Non-intervention in the production of goods. Free market forces were allowed to shape Sweden's industrial base, and ownership of industry remained in private hands.
- A "solidaristic" wage policy to reduce wage differentials so as to achieve greater equality and improve labour mobility. Wage differentials were regarded as an ineffectual way of reallocating labour, because of the existence of such hindrances to the movement of labour as housing. Instead, the idea was that a narrowing of wage differentials would speed up the transfer of resources by forcing ailing companies into bankruptcy while helping the most productive companies to expand and, thus, to push workers out of the declining industries rather than try to pull them into expanding ones.
- An active labour market policy of tackling unemployment, with measures like recruitment subsidies and job-creation schemes, and of improving the mobility of labour by providing retraining, relocation grants for workers, and information services to make job vacancies known.[8]

By the middle of the 1960s, when the Swedish economy appears to have reached a peak of achievement, its characteristics could be summarized as follows: "full employment, the unemployment rate varying between 1.5 and 2.5 per cent; a relatively low inflation rate – around 3 per cent; a high degree of cyclical stability; no balance-of-payments troubles; a rapid rise of the public sector; no visible structural imbalances; and a satisfactory rate of growth of total output – about 4 per cent" (Lundberg, 1985, p. 3). As Lundberg suggests, the Swedish model was at its apex, so that these features of the Swedish economy can also be regarded as a way to characterize the model.

Notes

1. This historical review of Sweden's economic and industrial development is based primarily on Carlsson *et al.* (1980), Carlsson and Waldenström (1980), and Andersson (1980).

2. A more accurate term for these investment funds from an accounting point of view is "investment reserves". Under this investment reserve scheme, a company was able to deposit a proportion of its pre-tax profits in a special fund. Later, the funds could be withdrawn and used in tax-free investments. The funds thus operated as both an instrument of demand management and a stimulus to investment. Generous depreciation allowances were also used to encourage investments. Although the rules governing these funds were first framed in 1938, it was not until legal amendments were added in the mid-1950s that the system began to assume major significance. (For further details see, for example, The Swedish Institute, July 1970).

3. As of 1972, the Netherlands' export share of GNP was 46 per cent, Norway's 40 per cent, Denmark's 29 per cent and Sweden's 24 per cent.

4. For an excellent review and analysis of Sweden's economic and political crises see Lundberg (1983a, 1983b and 1985). The historical review of Sweden's major economic crises in this chapter is based largely on these publications.

5. Since the foreign exchange value of a number of other currencies fell at the same time, the final result was an undervaluation of the krona by about 15 per cent (Lindström, 1970; Lundberg, 1983a and 1983b).

6. For further discussion of these factors see M. Abramowitz in Malinvaud (1979, pp. 1-51).

7. The Breton Woods system was in use in Sweden until the beginning of the 1970s.

8. For an excellent discussion of the Swedish model and its emergence see Lundberg (1985). For a more detailed presentation of the model see, for example, Leion (1974).

Chapter 3

Sweden's Economic Crisis of the 1970s

During the decades between the end of World War II and the early 1970s, the successful and progressive years of the Swedish model, stabilization policy appeared effective, and no serious imbalances arose in the economy. From a relatively high per capita level at the end of the war, Sweden's GNP continued to rise at a fairly steady annual rate of 4 to 5 per cent. The rate of general price increases remained relatively low, at 3 to 4 per cent per year, and total unemployment varied between 1.5 and 3 per cent. The development of international trade and the balance-of-payments remained harmonious, without systematic disequilibrium tendencies (Lundberg, 1981 and 1985).

Although, as in most other industrialized countries, Swedish industry's profit margins and share of world trade had been on a declining trend since the mid-1960s, in 1973-74 it was still difficult to observe any obvious or direct signs of weakness in Sweden's economy. Warnings were increasingly common, however, especially regarding the high rate of increase in public expenditures, growing tax pressure and high labour costs.

During the crisis years in the late 1970s the Swedish model seems to have disintegrated. Beginning in the middle of the 1970s and for nearly a decade thereafter, average growth rate decreased, industrial production and exports stagnated, and the average annual inflation rate rose substantially. Labour disputes became more frequent and wages simply exploded in an inflationary wave between 1974 and 1976. The success of the prior stabilization policy crumbled, and a number of economic imbalances emerged. The optimism that prevailed during the 1950s and 1960s gave way to a profoundly pessimistic view of the future prospects of Swedish industry and the economy (Lundberg, 1981 and 1985).

This chapter describes how events unfolded during this most recent economic crisis in Sweden. It analyzes the factors behind the crisis and shows that the severe disturbances and disequilibria of the 1970s appear to have brought about certain fundamental economic, as well as political and psychological, disorders, making conditions essentially worse than in previous periods of crisis.

The period covered in this chapter is 1974 to 1982. The years after 1982 marked a clear departure from trends of the previous decade, and they are dealt with in Chapter 5.

Economic Performance: 1974-1982

As Figure 3.1 illustrates, the Swedish economy deteriorated significantly in the years between the first oil crisis in 1973-74 and 1982. The performance of the economy was poor not only compared to earlier periods but also in relation to other high-income, small, open economies.[1]

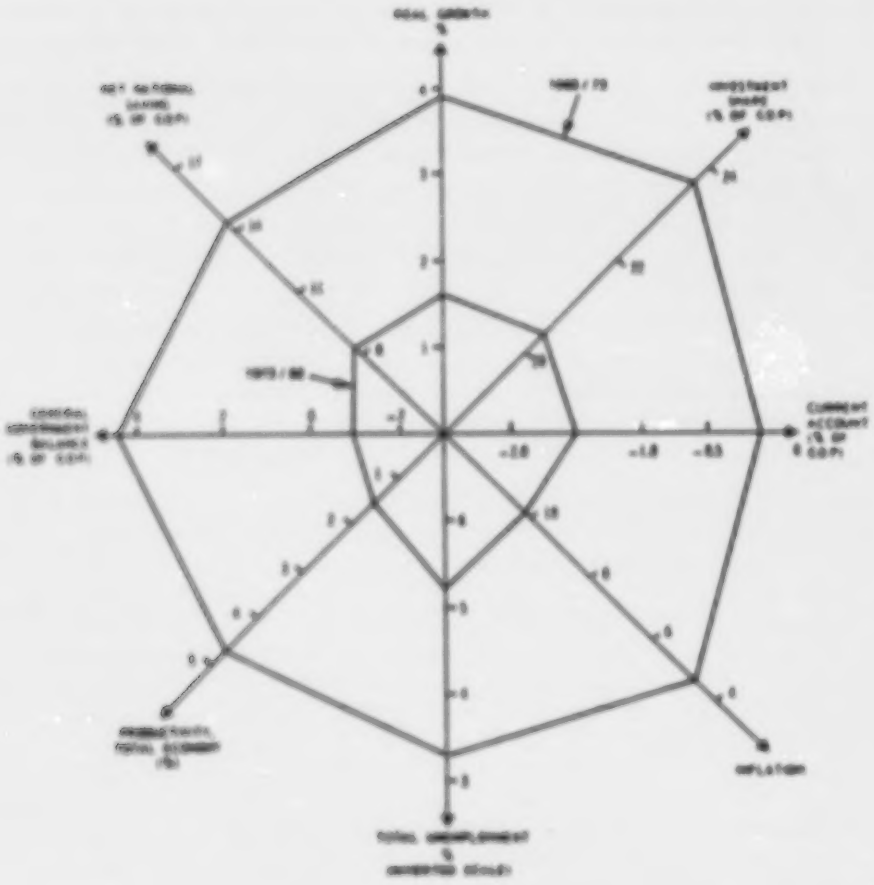
Real GDP growth was considerably lower during the crisis years than in earlier periods. For the years from 1974 to 1982 the average real GDP growth was only 1.7 per cent, compared with a 3.9 per cent average for the ten-year period ending in 1974. Real GDP growth also decelerated markedly in comparison with most other developed economies during this period. In particular, industrial production and productivity lagged behind trends in other countries. Manufacturing output also stagnated sharply, leaving the country with a relatively small industrial base. In terms of value added, the manufacturing sector accounted for only 21 per cent of GDP in 1982, compared with an OECD average of some 25 per cent. Sweden is one of the few OECD countries – among them, notably, the United Kingdom and Norway – where the 1982 level of manufacturing production was lower than that of 1973-74.

Sweden's weak export performance was particularly striking. Sweden's share of world trade had been eroding slowly since the mid-1960s, but losses of market share accelerated sharply after 1973-74. Trends in the loss of market share on the order of 1.5 per cent a year occurred throughout the 1970s, and by 1982 the accumulated loss amounted to nearly 20 per cent. Deteriorating export performance manifested itself in persistent current accounts deficits all through the crisis period. The cumulative deficit in current accounts reached some 15 per cent of GDP by 1982.

In relation to GDP, total gross fixed investments also declined steadily after 1974, though perhaps less dramatically than in other comparable economies. There was, however, a marked decline in "productive" investments. Fixed investments in manufacturing declined by almost 40 per cent between the mid-70s and 1982. The decline in capital formation was accompanied by a corresponding fall in the aggregate savings rate. Gross savings in relation to GDP fell from around 23 per cent in 1974 to only 14 per cent in 1982 – among the lowest rates in the developed world.

The government budget position weakened sharply, with the growth of public expenditures greatly outstripping that of the overall economy. The public sector grew

Figure 3.1
Sweden's Relative Economic Performance, 1963-1973 and 1973-1982



Source: OECD, *OECD Economic Surveys: Sweden* (Paris: February, 1984), p. 8.

rapidly, with general government outlays reaching 67 per cent of GDP in 1982 – the highest ratio among OECD countries. As a result, public indebtedness escalated throughout the 1970s, with interest payments representing an increasing share of expenditures.

Like most other countries, Sweden has also had to cope with inflationary pressures stemming from the oil crisis of 1973-74. Sweden belonged to the group of OECD countries that experienced relatively high rates of wage and price inflation throughout the crisis period.

In contrast to the negative trends just described, Sweden was able to maintain a relatively good employment situation. While "hidden" unemployment rose somewhat in the course of the 1970s, the open unemployment rate remained remarkably low by international standards, not exceeding 4 per cent. This low rate was achieved only at the expense of an unfavourable performance in industrial productivity and a marked increase in public sector employment.

The economic crisis of 1974-1982 in Sweden can be regarded as being caused mainly by a combination of external disturbances and unsuccessful stabilization policies. As will be shown, however, these factors cannot fully explain the country's deep stagflation during the period – political and institutional relations appear to have played a significant role as well. We turn now to a discussion of these factors.

External Disturbances

In the 1970s economic instability increased markedly in the industrialized world. There was rising unemployment and growing inflation, while economic growth was stagnating and the balance of trade deteriorating in many industrialized countries. Two dominant views have been put forward to explain this international stagflation. One suggests that the economic instability and stagnation of the 1970s was a result of a series of adverse disturbances of a transient nature and, thus, that economies would recover and return to the more stable, high-growth situation of the 1950s and 1960s. By contrast, opponents of this view assumed that major structural changes in the global economy occurred in the 1970s and that limited growth and continuing and frequent disruptive forces will continue to be part of future economic realities.

The rationale for viewing stagnation as transient was, as suggested by the McCracken report,[2] that disturbances and imbalances in national economies were predominantly a direct result of various governments' economic policies and actions. The more important among these included:

1. The enormous demand increase in the United States resulting from the Vietnam War.

2. The overvalued U.S. dollar, resulting in an explosion of liquid assets internationally in the early 1970s.

3. The strongly expansive monetary policies of a large number of countries in 1971 and 1972, which caused a dramatic increase in raw material prices.

4. The decisions of the Soviet and Chinese governments to compensate for their domestic grain shortages with large purchases at world markets.

5. The OPEC countries' decision to double the price of crude oil in 1973-74 (and to increase it further in 1979).

A long list of arguments has also been presented, however, suggesting the occurrence of irreversible structural changes in the global economy.[3] The major arguments include the following:

1. In the second quarter of this century the United States had established a significant technological lead on the rest of the world. This gave Europe and Japan opportunities for rapid growth in the post-war period. By imitating American technology they were able to make significant efficiency and productivity gains. As a result, in the 1950s and 1960s they progressed much more rapidly than the United States. By the 1970s, the technology gap between the United States on the one hand and Europe and Japan on the other had been radically reduced, and one of the most important factors supporting growth thus disappeared from the industrialized world.

2. Achievements in international trade liberalization were also a factor contributing to the rapid economic growth of the OECD countries in the 1960s. The establishment of trading blocks, the European Economic Community and the European Free Trade Association, and a series of other agreements on tariff reduction, resulted in a marked expansion in trade between the industrialized countries, as well as in efficiency gains through an improved international division of labour. This liberalization process is now more or less at an end, however, and the potential for further efficiency gains appears to have diminished. Another of the growth-supporting factors of the 1960s has thus been removed.

3. A substantial part of the industrialized nations' productivity gains since the world wars was most certainly a result of the movement of labour from agriculture to industrial production. This movement has now progressed to the point where any further transition will necessarily be limited. At the same time, there has been an increasing unwillingness on the part of the labour to accept mobility. As a result, structural adjustments in industry have become sluggish in most industrialized countries, a fact that has most likely added to or reinforced the limits to growth.

4. In the post-war period, capital intensity in industrial production increased rather rapidly in the developed world. This higher level of capital intensity appears not to have been fully compensated, however, by an equivalent productivity increase. The result has been a constantly diminishing return on invested capital. This means that more capital is needed today than in earlier periods to increase productivity by the same amount and, hence, that the

growth in national production at a given investment rate now is lower than in previous decades.

5. In the 1950s and 1960s the real price for crude oil dropped. This development was reversed in 1973-74, and since then the real price for crude oil has increased dramatically. This reversed trend not only created enormous disturbances in international trade and in the international monetary flow, but it also meant a radical shift in the relative prices of energy and other input factors. It is well documented that this was one of the most important factors contributing to sluggish economic growth in the industrialized nations in the 1970s.

More recent arguments supporting the view that structural changes in the global economy in the 1970s compounded the difficulties of the industrialized countries in attempting to return to and sustain high economic growth refer to newly emerging forces. One such force was intensified industrial competition from the developing world and, in particular, from the newly industrialized countries (Heenan and Keegan, 1979; UNIDO, 1981). Increased awareness and concern about environmental issues, as well as growing demands for industrial democracy or a better quality of working life, were among the other forces that may have had adverse effects on the productivity of the industrialized, high-income nations and, hence, on their growth potential (Calmfors and Wadner, 1980, pp. 134-159).

With the benefit of some hindsight, we can safely conclude that both views have some validity in explaining the international stagflation of the 1970s. Transient phenomena had their effects, but some of the forces at play also created structural changes in the global economy. What concerns us here is the impact of these external disturbances on the Swedish economy.

The oil crises of 1973-74 (OPEC I) and 1979 (OPEC II) had serious effects on Sweden's economy and industry. Sweden is among the countries that rely heavily on imported oil, and the crude oil price escalation turned the country's normally positive trade balance into a substantial deficit. Between 1972 and 1976, for example, the value of Sweden's energy imports increased from Skr 4 billion, or 2.0 per cent of GNP, to Skr 15 billion, or 4.7 per cent of GNP.

Countries that were equally or even more severely affected by the oil price shocks included Japan, Finland, Belgium, Luxemburg, Denmark and France.[4] In Sweden's case, however, the oil price escalation also had some important indirect consequences. It accelerated the emergence of a brewing crisis in the shipping industry. As a result, shipping revenues, which in 1974 accounted for about one-tenth of Sweden's total export revenues, dropped by approximately 25 per cent within a few years. Closely related to the crisis in the shipping industry was the crisis in the shipbuilding industry. With its large shipbuilding sector, second only to Japan's in the early 1970s, Sweden was hit particularly hard by the decline of this sector. Moreover, difficulties in the shipbuilding industry acted as a catalyst for the slump in the Swedish steel industry, because of the Swedish steel industry's tight links with shipbuilders in Sweden and abroad.

The combined effects of these direct and indirect consequences of OPEC I added up to no less than Skr 16 billion (1974 prices) on Sweden's trade balance account: Skr 11 billion in increased oil imports, Skr 1 billion in lost shipping revenues, Skr 3 billion in lost export revenues from shipbuilding, and Skr 1 billion in lost steel exports. This represented approximately 23 per cent of Sweden's total exports and 6.5 per cent of its GNP at that time (Carlsson *et al.*, 1980, pp. 18-19).

Low-cost competition in iron ore and forest products, still constituting some 15 to 20 per cent of Sweden's exports in the early 1970s, put additional strains on Swedish industry. Iron ore mines were increasingly exposed to competition from new, more accessible deposits, primarily in Brazil and Australia, at the same time as the cost of extracting Swedish deposits was rising. Similarly, the Swedish forest industry, with escalating timber costs and limited renewable resources, was increasingly at a disadvantage relative to its competitors in the United States and Canada. In addition, massive new sources of timber were opened up in the 1970s in Latin America (primarily in Brazil), West Africa and Asia (mainly in Malaysia and the Philippines) (The Boston Consulting Group, 1978; Carlsson *et al.*, 1980).

Finally, but not the least of these forces, strong emerging competition, particularly from Japan but also from newly industrialized countries like Korea, Taiwan, Singapore, Spain, Brazil and Mexico, created serious dislocations in Swedish industry. Over the course of the 1970s, these countries gained market share at an accelerating rate and in an increasing number of industrial sectors, both in the domestic markets of the industrialized countries and in their export markets (The Boston Consulting Group, 1978; Carlsson *et al.*, 1980).

Declining Competitiveness

None of the small, high-income countries was able to avoid the international stagflation that characterized the latter part of the 1970s. It is well known, however, that Sweden performed more poorly during the economic crisis than other small industrial nations. The average rate of economic and industrial growth was lower and export performance was markedly weaker in Sweden than in other comparable economies all through the 1970s and early 1980s. In the case of Sweden, these internationally induced disturbances were aggravated by a misdirected stabilization policy and a series of misjudgments in wage and price policies (Lundberg 1981; Erixon 1982).

The unfavourable trend in the Swedish economy in the 1970s was strongly correlated with the country's relative unit labour costs (see Table 3.1). While Sweden's unit labour costs were comparable to those of the United States in 1970, by 1980 they exceeded U.S. levels by about two-thirds. By that time, Sweden's relative unit labour costs were higher than those of any other industrial nation, with the exception of the United Kingdom (and possibly Switzerland).

The appreciation policy that was implicit in adherence to the European "currency snake" in 1975 also contributed to some extent to Sweden's unfavourable cost trend. However, as Erixon (1982) points out, the principal reasons for the country's deteriorating

unit labour costs were modest improvements in productivity, especially in 1976, and the hefty increase in hourly wage rates between 1974 and 1976.

Table 3.1
Indices of Labour Costs per Unit of Output, Manufacturing, Selected Countries (United States = 100)*

	1960	1970	1980
Sweden	86	98	167
Canada	123	108	113
France	75	70	129
West Germany	51	70	134
Japan	44	50	75
United Kingdom	86	103	197

* Indices of total compensation per hour (in U.S. dollars converted at prevailing exchange rates) are divided by indices of output per hour (for Canada, Japan and the United States) or per person (for the European countries).

Source: D.J. Daly and D.C. MacCharles, *Focus on Real Wage Unemployment* (Vancouver: The Fraser Institute, 1986), p. 96.

In 1974 Sweden adopted an expansionary economic policy to offset the recessionary effects of the oil price increase. In addition, the government provided special support for stockbuilding (particularly of export goods) and introduced new training measures, all of which tended to reduce unemployment. Priority was given to measures to support employment, with lower priority given to the goals of efficiency and adaptability and restraining inflation. The net result was a more rapid increase in total compensation and labour costs per unit of output in Sweden than elsewhere.

As can be seen in Table 3.2, by 1980 hourly compensation of manufacturing production workers in Sweden (at prevailing exchange rates) was about 25 per cent above rates in the United States, after being 30 per cent lower in 1970.[5] The tendency for hourly compensation in Sweden to exceed rates in the United States (and Canada) began only in 1975, and it is clear that during the second part of the 1970s the level of hourly compensation in Swedish manufacturing was among the highest in the world (at prevailing exchange rates).

The 1974-76 collective labour agreement created a particularly hefty increase in hourly compensation in Sweden, fueled by the government's expansive economic policy at the time. As a result, by 1977, Sweden's wage levels had escalated by between 40 and 45 per cent, roughly 25 per cent in excess of the average increase in wage rates for the OECD countries. The Swedish government's foreign exchange policy, resulting in a highly

overvalued krona in 1975-76, exacerbated the situation. The currency realignments of 1977, combined with wage restraint during the rest of the decade, decreased labour costs sharply. However, in 1980, Sweden's rate of hourly compensation still exceeded that of all other nations.

Table 3.2
Relative Hourly Compensation of Production Workers in Manufacturing, Selected Countries
(United States = 100)*

	1965	1970	1975	1980
Sweden	60	70	113	127
Canada	73	83	92	87
France	40	42	72	93
West Germany	45	56	100	126
Japan	15	24	48	57
United Kingdom	37	35	51	75

* Indices are adjusted for comparability on the basis of prevailing exchange rates.

Source: U.S. Department of Labor, *Estimated Hourly Compensation of Production Workers in Manufacturing, Ten Countries: 1960, 1965, 1970-1980* and *1975-1986* (Washington: March 1981 and February 1987).

This high level of hourly compensation in manufacturing during the second part of the 1970s was not matched by comparable levels of real output per worker. In fact, as shown in Table 3.3, while the level of output per hour in Swedish manufacturing improved throughout the decade, by 1980 it was still estimated to be about 25 per cent below that of the United States (though comparable with Canada's). It was also clearly below levels in West Germany and roughly comparable with those in Japan and France, an important shift in the relative positions of Sweden's major competitors since 1970.

Talk of a cost crisis in the Swedish public policy debate of the late 1970s was thus well grounded. However, it should also be noted that Swedish manufacturers tried to pass on the unfavourable cost changes in the seventies. As can be seen in Table 3.4, the price index for the GDP deflator also increased more rapidly in Sweden than in the major OECD countries (only the United Kingdom showed a higher increase) and more rapidly than the OECD average.

According to Erixon (1982, p 121), after 1976 Sweden's export prices actually moved even less favourably, from a competitive point of view, than unit labour costs. For example, relative export prices increased between 1978 and 1980, while unit labour costs decreased markedly in relative terms. For the period 1976-1980, the gap between relative

export prices and unit labour costs was wider in Sweden than in any other OECD country (except for Belgium).

Table 3.3
Real Output per Hour Indices, Manufacturing, Selected Countries
(United States = 100)

	1960	1970	1980
Sweden	48	69	75
Canada	62	72	75
France	39	56	71
West Germany	58	78	93
Japan	22	47	76
United Kingdom	34	37	45

Source: D.J. Daly and D.C. MacCharles, *Focus on Real Wage Unemployment* (Vancouver: The Fraser Institute, 1986), p. 67.

Table 3.4
Gross Domestic Product in Producers' Values, Price Indices, Selected Countries
(1975 = 100)

	1970	1980	Ratio 1980/1970	Ratio 1980/1975
Sweden	64.9	149.5	2.248	1.459
Canada	66.1	138.0	2.088	1.380
France	65.5	144.8	2.211	1.448
West Germany	72.7	115.7	1.591	1.157
Japan	63.1	118.2	1.873	1.182
United Kingdom	54.1	165.3	3.055	1.653
United States	72.1	129.6	1.798	1.296
OECD Total	66.5	137.9	2.074	1.379

Source: OECD, *National Accounts Statistics, Vol. 1, Aggregates* (Paris: January 1981), p. 82.

Although the cost crisis was obviously significant in the markedly weak performance of the Swedish industry in the 1970s, this explanation must be supplemented by reference to structural factors. For instance, studies of export trends since the mid-70s suggest that market growth, or rather the lack of it, was strongly conditioned by Sweden's export structure. By virtue of the limited extent of restructuring in Swedish industry during most of the 1970s, the structural composition of exports – their country and product distribution – has clearly contributed to the declining competitiveness.

In Table 3.5 the effects of product and country distribution, combined with the effects of competitive strength in a broad sense, are shown for the period 1975-79. The table suggests that structural factors were indeed important determinants of Sweden's poor export performance. The country distribution of exports was particularly unfavourable, but the Swedish product structure had also some obvious adverse effects on export trends.

Table 3.5
Factors Determining Changes in Swedish Exports, Average Percentage Rate of Change, 1975-79*

Market Growth:		
Attributable to Product Distribution	Attributable to Country Distribution	Attributable to Competitive Strength
-0.31	-1.14	-1.94

* The constant market share method was used to determine which factor or factors – product mix, market mix or competitive strength – were the cause of change in growth in world markets. The competitive strength effect was derived in this method as a residual item, which reflects the overall influence on the market shares of relative export prices, the "soft" means of competition and the general competitive pressure. For further details on these calculations see Horwitz (1982).

Source: E.C. Horwitz, *Swedish Export Performance 1963-1980 – A Constant-Market Shares Analysis* (Stockholm: IUI, January 1982).

Sweden traded relatively extensively with countries whose imports increased slowly, or not at all, in the 1970s. As pointed out by The Boston Consulting Group (1978, Appendix 7), Sweden's major export markets remained relatively stable, with Europe accounting for over three-quarters of its exports. Sweden did not follow its competitors in emphasizing the developing economies of Asia, Africa and South America, which were then commanding an increasing share of world demand, as export markets.

World markets for various product groups had also developed differently in the 1970s. The growth of the market for input items, and especially for capital goods, was

extremely modest, and Swedish exports consisted of relatively more capital goods and fewer consumer goods (Erixon, 1982).

Inertia in industrial restructuring was also reflected in the distribution of labour and in the pattern of investments in industry (The Boston Consulting Group, 1978, Appendix 7). In contrast to previous periods, in the 1970s the distribution of jobs remained relatively constant. In the more healthy sectors – the so-called knowledge-intensive industries such as mechanical and electrical engineering, transport equipment, chemicals and pharmaceuticals – Sweden was able to maintain its competitive position and market share. However, fierce competition and a changed competitive environment constrained further growth even in these healthy sectors, and prevented adequate compensation for the decline in other sectors. Sweden's traditionally strong sectors, including iron ore, forest products, shipbuilding and steel, were increasingly threatened, were losing market share and were unprofitable. Still, employment in these sectors remained constant as a result of the government's job maintenance programs.

Also during most of the 1970s, investment in the declining sectors increased more rapidly and was relatively higher than in the healthy sectors. For example, contrary to trends in the 1960s, between 1973 and 1977, 44.5 per cent of industrial investment in Sweden was in the declining sectors, compared with 26.3 per cent and 28.8 per cent in the healthy sectors in 1973-75 and 1975-77 respectively.[6]

Not only did Sweden fail to change its allocation of investment funds during the 1970s, but the country's level of total industrial investment was also too low, a factor that seems to have further constrained necessary industrial restructuring (The Boston Consulting Group, 1978, p. III).

Public Sector Growth

Public activities in Sweden expanded rapidly in the post-war period and became increasingly prominent in the national economy. In the 1960s and 1970s the expansion of the public sector was especially rapid, so that by the early 1980s public sector investment and consumption amounted to 30 per cent and 7 per cent of GDP respectively. Total expenditures of the public sector, including consumption, investments and transfers, accounted to no less than 67 per cent of GDP (Skandinaviska Enskilda Banken, 1981, pp. 45-46).

To some extent, this shift from primary and secondary sectors to service activities is a typical consequence of growth and can also be seen in other countries. As concluded in the OECD economic surveys of Sweden (June 1981), however, the shift in Sweden was clearly out of line with developments elsewhere. Calculated as a percentage of GDP, public spending in Sweden exceeded that of any other western mixed economy. In terms of public outlays per capita, Sweden's leading position was even more noticeable.

Although opinions were divided with respect to the specific nature and magnitude of the effects of this rapid public sector growth, it was believed that excessive public expenditures contributed to the weak performance of Swedish industry and the economy

(Calmfors and Wadner, 1980). There are essentially three channels through which expansion of the public sector seems to have crowded out production in the private sector: through detrimental effects on the labour market; through the negative effects of higher taxation on wage settlements, competitiveness and profitability; and, finally, through a process of financial crowding-out.[7]

For example, between 1965 and the late 1970s, public employment increased from 12 per cent to some 30 per cent of total employment. At the same time, mining and manufacturing, forestry and agriculture – the sectors most essential to exports or competing with imports – dropped from 41 per cent to 29 per cent of total employment. Considering the relatively tight labour market in Sweden, there is reason to believe that the growth in public sector employment contributed to conserving labour market rigidities. This seems to have been particularly so in 1979-1980 when labour shortages in certain regions were an obstacle to expanding production in export industries (Calmfors and Wadner, 1980, pp. 13-38).[8]

Assar Lindbeck, one of Sweden's prominent economists, suggests that the adverse consequences of public sector growth have to do not so much with the demand or use of resources (labour and capital), but rather with how the public sector is financed. According to Lindbeck, the explosion of public activities in Sweden resulted in an enormous tax burden, which through its impact on wage settlements, competitiveness, and profitability constrained the effectiveness of the economy.[9]

The OECD's analysis of the Swedish economy supports this view (June 1981, pp. 26-31). As Table 3.6 shows, marginal tax rates were the highest in Sweden among OECD countries in the 1970s. Even for the medium income bracket (between 1 and 2 times the income of an average production worker) two-thirds or more of income increases were absorbed by direct taxes. As a result, in the 1970s, the growing number of people becoming reliant on the public sector and the resulting increase in taxation led to a widening gap between real wages and private consumption on the one hand and national income on the other. In addition, the resistance of real wages to tax increases probably hampered external competitiveness and lowered profitability and capital formation in the exposed sectors of the economy, thus contributing to the country's external deficit. Finally, the growing tax burden may have affected the behaviour of the labour force by creating a disincentive for increased work effort.

Financing the widening budget deficit also seems to have led to financial crowding-out of the private sector (OECD, June 1981, pp. 26-31). Given the internal and external constraints, the government sought to finance a large portion of its borrowing requirements through domestic issues of long-term bonds. This contributed to the steady upward trend in interest rates throughout the 1970s. Not only did the budget deficit put pressure on interest rates, but it also threatened the stability of the krona.

Table 3.6
Marginal Tax Rates in Selected Countries*

	The Increase in Income Is Attributable to:			
	The Husband Increasing His Earnings		The Wife Entering the Labour Market	
	1974	1978	1974	1978
Sweden	65	68	39	37
Canada	n.a.	n.a.	n.a.	n.a.
France	13	19	21	24
West Germany	28	33	35	39
Japan	22	24	16	16
United Kingdom	35	36	29	26
United States	27	33	27	35

* Marginal taxes have been defined as the relative increment to taxes and social security contributions for a family (with two children) whose income increases from that of an average production worker to twice that of an average production worker.

Source: OECD, *OECD Economic Surveys: Sweden* (Paris: June 1981), p. 29.

Unsuccessful Economic Policy

Comparing the most recent crisis with previous ones, Lundberg (1983a and 1983b) concludes that many of the crisis phenomena that characterized the stagflation of the 1970s also occurred during earlier crises. Sometimes these crises caused even greater strain on the economy than was the case in the most recent one.

For example, during the foreign exchange crises of 1919-1920 and 1947, the current account deficits were relatively larger than at any time between 1974 and 1982. Previous inflationary crises were also serious, with a general rate of price increases of 15 to 20 per cent. The deep depressions of 1921-23 and 1931-32 resulted in a decline in industrial production of about 25 per cent, which is comparable to the decline in the 1970s. Structural problems after the world wars were quite severe and resulted in greater demands for readjustment than the oil price shocks of the 1970s. Financial imbalances gave rise to considerable concern in the inter-war depressions and, in particular, during World War II, when budget deficits were equivalent to that of the most recent crisis, amounting to between 10 and 14 per cent of GNP.

On earlier occasions, however, crises were overcome quickly, and economic revival was relatively early and strong. The stagflation that began in 1974, on the other hand,

was unique in the sense that it persisted for almost 10 years. It is against this background that Lundberg concludes that "a principal cause of our current crisis 'the crisis of the 1970s' is to be found in an unsuccessful stabilization policy (1983a, p. 54)".

The problems started with the Swedish government's strongly expansive financial policy in 1972-73, when the international boom was in full swing. The expansive policy continued, in the form of a traditional Keynesian bridging policy, in 1974-76 as a response to the international recession, which had been accentuated by the oil price shock of 1973-74. The aim was to "jump over" the recession. While Sweden was one of the few countries that managed effectively to offset the recessionary impact of the oil price increase, given the cautious policies pursued by most other countries, Sweden's anti-cyclical strategy led rapidly to internal and external imbalances. The policy simply became too stimulative, resulting in, among other consequences, wage inflation of unprecedented proportions – labour cost increases amounted to more than 20 per cent in 1975 and another 17 per cent in 1976 (see also Lundgren and Ståhl, 1981, pp. 7-17).

By 1975, hourly compensation in Swedish manufacturing had moved ahead of levels in the United States and all the European countries (as shown in Table 3.2), but this was not matched by higher levels of output per hour. Output per hour in Swedish manufacturing ran 25 or 30 per cent below that in the United States in the 1970s. By 1980, labour costs per unit were 67 per cent higher than in the United States, and Sweden had become the highest-cost producer of manufactured products among the major industrialized countries, second only to the United Kingdom at the exchange rates then prevailing.

A continued overvaluation of the Swedish krona was made possible by substantial issues of long-term Swedish government bonds, primarily in the United States. Because the krona was clearly overvalued as early as 1975, a depreciation was inevitable (Lundberg, 1983a and 1983b). Instead, however, a certain automatic appreciation also occurred because the krona was pegged to the Deutsche Mark in the "currency snake". The depreciation policy of 1976-77 was late and inadequate, and by then economic stagnation had set in. Swedish industry's market shares were eroding dramatically, and industry profits virtually collapsed in 1977-78.

In 1979, policies again became overly expansionary as the Swedish government tried to dampen the impact of the 1977-78 recession. As a result, in 1980, Sweden was hit by one of the most serious labour conflicts in its history. Finally, at the end of 1980, economic policy became significantly less expansionary than it had been in the previous decade. The 1981 depreciation policy represented an attempt, after the fact, to adjust to persistently imbalanced high cost levels (OECD, *June 1981* and *July 1982*).

There were other mistakes in economic policy too. In the late 1970s, when it became apparent that Swedish industry had some structural problems as well, the government responded by heavily subsidizing selected industries and by increasingly regulating labour market conditions (Lundgren and Ståhl, 1981, pp. 27-33).

Support and subsidies to industry were aimed at maintaining employment and providing respite for more long-term adjustment measures. Government subsidies,

credits and guarantees, and other support measures (including state equity capital) remained in enormous proportions in 1978-79 and virtually exploded in 1981-82 (Lundgren and Stahl, 1981; Industridepartementet, 1982).[19]

Changes in labour market policies were no less dramatic. In contrast to previous policies, which were aimed at easing individual adjustments to labour market demands, in the 1970s the emphasis shifted to maintaining employment levels within existing industry and corporate structures (Lundgren and Stahl, 1981, pp. 32-35). The so-called Rosen bill of 1974, for example, contributed to an effective freeze of employment levels in private and public organizations. Further additions in the area of industrial democracy and quality of working life resulted in expansion in the number of labour market laws and agreements. The number of these laws and agreements increased from a historically stable level of 2 to 7, introduced in the course of a decade, to close to 30 in the 1970s.

These defensive measures to help maintain employment and investment in industry delayed the longer-term structural adjustments that a small open economy like Sweden needed to make to respond to the changing world market. As a result, government policies seem to have introduced institutional rigidities and disincentives, markedly slowing down, or possibly even temporarily impairing, the types of adjustments that had been introduced successfully by Swedish industry during similar crises in earlier periods.

The Fall of the Swedish Model

Serious external disturbances and unusually inept economic policy still do not explain the extremely poor performance of the Swedish economy between 1970 and 1990. As is clear from the events described here, the crisis was not purely economic but was political as well. It was a crisis in the market economic system, and it led to a breakdown of the Swedish model (Lundberg, 1991 and 1992).

Paradoxically, as Lundberg has suggested, the very success of the Swedish model in the 1950s and 1960s may have triggered reactions and forces that undermined the stability and continued support of the market economy and of the model itself.

Rapid and steady economic growth for nearly three decades created an expectation that expansion could be taken for granted. Rapid growth of the public sector and income equalization seemed affordable and politically acceptable. However, increased wealth led to changes in attitudes and new demands. The economic goals of the 1950s and 1960s – rapid growth, full employment and stable prices – were complemented by more ambitious welfare aims. Stable, security and equity were given priority, as the same risks as welfare were associated with rapid growth and full employment were considered increasingly questionable (Lundberg, 1991, pp. 13-14).

There was mounting criticism of the overemphasis on growth, while demands for industrial democracy and quality in working life gained momentum. Increasingly strong voices were also raised in favour of more equal distribution of income and wealth. This led to a rapid increase in total expenditures of the public sector and to higher taxes. Then,

as pointed out by Lundberg (1981, p. 14), toward the end of the 1970s came the realization that the growth party would have to come to an end and that economic resources would be insufficient to fulfil both private and public needs. The confidence in the effectiveness of the market system was suddenly shattered.

Politically these trends were reflected in the form of more confrontations and mutual lack of confidence between parties and labour market groups. Special interests took precedence over the previous consensus on mutual values. The unstable political situation and weak governments in the latter part of the 1970s resulted in further divergence in opinions and attitudes and polarization of party politics. During this period the Social Democrats were radicalised under the leadership of Olof Palme, and the strong central trade unions also became politically aggressive and uncooperative with governments (Lundberg, 1985, p. 24). The violent political debates surrounding the collective wage-earner funds are firm evidence that political conditions changed significantly over the course of the 1970s.

The fundamental prerequisites for the effective functioning of the Swedish model – shared values, co-operation, stability, and an optimistic outlook – all slowly disintegrated as a result of these serious disorders in the economic, psychological and political conditions of the 1970s. In addition, the EFO model, which was the key mechanism for wage determination in the Swedish model, was not robust enough to withstand the inflationary dynamics which were accentuated by the oil price shocks. The norms for wage determination along the lines of the model were thus lost (Lundberg, 1981, pp. 14-15). Government intervention in wage formation and the emergence of the public sector as a pacesetter in wage development only exacerbated the situation.

The political crisis of the 1976-1982 period has some parallels with the immediate post-war years (Lundberg, 1982a and 1982b). There, as in the 1970s, the need for a change in the market system originated in the fact that the stabilisation policy did not work. In the post-war years, however, after the depreciation in 1949 and after the Swedish economy got under way again, planned economy ideas disappeared from the political arena. In the 1970s, the political situation was more complicated, and large public expenditures and high tax pressures made conditions essentially worse. Therefore, as pointed out by Lundberg, any resolution of the political crisis would have required a radical reduction and reorganization of public finances, as well as a considerable degree of statesmanship and political co-operation (1982a, p. 57).

Notes

1. The following review of Sweden's comparative economic performance is based primarily on OECD economic surveys of Sweden (June 1981, July 1982, February 1984 and May 1985).

2. The McCracken report is a publication of a group of economists under the auspices of the OECD (OECD, 1977).

3. These arguments are summarised in a study by M. Abramowitz, published in Malinvaud (1979, pp. 1-51).

4. From 1972 to 1976 Japan's import of energy rose from 2.1 per cent to 5.7 per cent of GNP; the comparable figures for Finland were 3.5 per cent and 5.9 per cent, for Belgium and Luxemburg 3.4 per cent and 5.6 per cent, for Denmark 2.5 per cent and 5.0 per cent, and for France 1.7 per cent and 4.1 per cent (Eurostat, 1978; OECD, 1972 and 1976).

5. This differential partly reflects the more rapid increases in hourly compensation in Sweden, and partly the foreign exchange rate changes that occurred in the 1970s.

6. For the period 1973-75 the comparable figures for Germany, for example, were 42.7 per cent of all industrial investments in the healthy sectors and 21.1 per cent in the declining ones (The Boston Consulting Group, 1978, Appendix 7).

7. For a detailed elaboration of these issues see *OECD Economic Surveys: Sweden* (June 1981, pp. 26-31).

8. The situation was exacerbated by the fact that heavy public support to the structurally depressed industries, such as iron and steel and shipyards, reduced labour mobility from these sectors at the time.

9. Lindbeck's ideas are discussed in, among others, Calmfors and Wadner (1980, pp. 54-72).

10. These measures are discussed in detail in the next chapter (Chapter 4), in the context of Sweden's stance on industrial policy and planning.

Chapter 4

Industrial Policy and Planning in Sweden

The crisis in the market economic system and the subsequent breakdown of the Swedish model greatly intensified government interference in industry during the 1970s. Aggregate fiscal and monetary measures alone no longer appeared adequate to maintain industrial competitiveness. As pointed out earlier, subsidizing selected parts of the industry and regulating labour market conditions were increasingly emphasized as means of complementing market forces in shaping the structure and competitiveness of Swedish industry. That is, industrial policy was seen as the remedy for dislocations in the country's international competitive position.

This chapter elaborates on Sweden's approach to industrial policy. Following a brief discussion of the meaning and effectiveness of industrial policy, the emergence and practice of industrial policy and planning in Sweden are reviewed. While earlier use of such policies is discussed, the emphasis is on the crisis period – 1974 to 1982.

Meaning of Industrial Policy

The classical static view of comparative advantage concentrates on a nation's existing endowments of indigenous resources and production factors and on the search for industries that provide the best opportunities for exploiting the configuration of these endowments. The new, or "dynamic", view of comparative advantage suggests that nations can choose the industries in which they would prefer to compete by shifting the pattern of competitive advantage in their industrial base.[1] Industrial policy is based on this concept of "dynamic comparative advantage" and "managed competitiveness".

Industrial policy can be defined broadly as the sum of a nation's efforts (both public and private) to shape industrial activity and influence economic growth. While the target of policy lies in the broad dimension of economic performance, the immediate focus of industrial policy is on issues that are closer to the performance of the industrial sector itself. Its major concern lies in structural change in world markets and the strategic positioning of a nation's key industrial sectors, rather than in short-term allocative efficiency or aggregate supply and demand. This industrial restructuring can be influenced by some or all of the following overall measures: new business development, the redeployment of human and capital resources to growth sectors, the withdrawal of those same resources from declining sectors, and the easing of society's adjustment to change.[2]

Industrial policy measures can be general or selective. Frequently, however, even general policies reach down to the level of specific industries. In the case of selective measures, they can be activity-specific, region-specific, sector-specific, industry-specific or firm-specific. While these measures often focus on the supply side, demand-side policies are also possible, because some of these policies may have indirect effects on supply. Thus, the concept incorporates all measures or programs (that is, sets of measures) that make a nation's key industrial sectors more adaptable and dynamic and that improve growth, productivity and competitiveness in the sectors. For an industrial policy to be effective, however, these measures or programs must be co-ordinated. A set of cohesive policies is referred to as "industrial strategy".

Not only does industrial policy encompass a broad diversity of policy measures, but a variety of institutional bodies can engage in it as well. Policy can be made by governments at various levels – at the national, regional or provincial, or local level – or it can be made and carried out by public or private firms in co-operation with government bodies. Thus, there is a choice, which may be dictated by political ideology and rhetoric or by pragmatic rationales and necessities.

At one extreme of the industrial policy continuum is the plan-driven approach, whereby the government intervenes directly and overtly in the economy and industry and to various degrees plans output and/or investment by sector. The other extreme is referred to as the market-driven approach, where government involvement is minimal. This approach sees markets and competition guided by the invisible hand, with government in the role of referee and regulator.

Among the more pragmatic approaches between these two extremes, there are myriad configurations in the formation and carrying out of industrial policies, with varying degrees and forms of involvement by government, business and labour. One such approach is closer to the market-driven end of the continuum, where the visible hand of the government is supplementing (not substituting for) market forces by, for example, creating incentives to promote savings or consumption, promoting mobility of resources, or altering risk/reward relationships. In this case, the role of the government is simply to shape the environment of business so it can respond more promptly and effectively to market forces. A somewhat more interventionist but still basically market-driven approach is, for example, when the government promotes innovation by subsidizing research and development costs and by increasing the rewards for successful

entrepreneurship or by promoting new technologies within existing companies; or when the government encourages winners by promoting growth of strong industries and firms through foreign trade and investment policies and export subsidies. Although the government has a more active role in industrial restructuring in these situations, the critical choices still lie largely with individual firms.[3]

Effective Policies

Since the 1960s, and particularly during the last decade or so, industrial policy has gained widespread acceptance internationally. Today there are few countries that are not making use of government measures that can be grouped under the umbrella term of industrial policy (Horváth, 1985).

As suggested by the important differences in policy measures, institutional framework and method of implementation among various countries, there are many routes by which industrial objectives have been furthered. Accordingly, the effects of industrial policies on competitiveness and economic performance have shown wide variations. Some countries have been skilled in their industrial policies, while others have made the wrong choices. Although the factors that determine industrial success are complex, cumulative experience points to certain key attributes of effective policies.

The key goals of industrial policy are economic restructuring and improvement of competitive productivity. Experience shows that the only viable long-term route to these goals appears to be the creation of new businesses. However, since industrial decline is inevitable in a vital economy, successful industrial policies must also aim at minimizing the burden associated with decline. The best policy is thus one that influences new business development and at the same time smoothly redeploys human and capital resources from the declining to the growth sectors. The worst policy allows companies to fail but does not encourage companies with growth opportunities to fill the gap.

The required resources for promoting new businesses are usually assumed to be created through the withdrawal of those same resources from the declining sectors. Frequently, however, these resources (particularly investment funds) are insufficient or, for socio-political reasons, cannot be withdrawn as quickly as needed. Only by raising the level of savings and investments can the required funds be created for an effective strategy. As Scott (1982) puts it, a strategy promoting development and productivity at the expense of welfare may be necessary. This is one of the most critical areas for government involvement and action in the policy process.

It also appears important to act in anticipation of events. In gaining competitive advantage, new technologies must be nurtured at early stages of development and growth businesses promoted in a timely fashion to capitalize on strategic windows. Similarly, decline must be managed before it reaches crisis proportions to avoid unnecessary hardship and overly expensive solutions. Because of their insight and expertise, the final critical choices should usually lie with individual firms or industry groups.

Successful policies are often associated with an element of choice or selectivity. Industry-wide programs are frequently too broad to be effective. Most important, however, industrial policy instruments must match the needs of the specific competitive situation and thus require industry and firm input into the policy process. In addition, to be effective, the various measures or instruments must come together in a coherent whole to form a well-integrated strategy.

An effective organization for the formulation and implementation of policies also seems imperative. A first principle for such an organization is that policy emanates from only one or two sources in the government or other mandated institutions, and that jurisdiction is clearly defined. Also, to avoid unnecessary red tape, policy making should not depend on a large bureaucracy. A second principle is that competent and committed institutions and organizations (public and private), that are able to wield political clout, have responsibility for formulating and carrying out the policy. A third principle is that policy making is based on the principle of consultation and co-operation between government, business and labour and that the process is transparent. Effective industrial policy rests on social consensus and collective commitment.

Finally, experience suggests that the most successful industrial strategies have included policy changes to promote increased investment, more rapid adaptation by industry and increased mobility of labour. Moreover, in such cases, the visible hand of the government was supplementing rather than substituting for market forces, and business, labour and government shared a common vision and commitment to industrial change and development.[4]

Industrial Policy Prior to the Crisis

A common perception in North America seems to be that government intervention in the western economies, and in the European economies in particular, has been the result of "creeping socialism". Yet political labels do not reveal a great deal about governments' industrial policies. Sweden, for example, which for the last half-century or so (with the exception of 1976-1982) was governed by a socialist party with a pronounced egalitarian bent, has until recently been perhaps the closest approximation of an economy without any specific sectoral policies or an explicit industrial strategy. It had fewer nationalized industries and less government intervention in industry than did most conservatively controlled countries.

Until the late 1960s government assistance to industry in Sweden was very rare (Lundgren and Ståhl, 1981). Direct subsidies were given only to state-owned enterprises and on a limited scale. The very first such subsidy dates to the 1930s, and there are additional examples in the 1940s and 1950s. The rationale for these subsidies was based on national security and defence considerations.

As far as the private sector was concerned, no direct subsidies to industry existed until the late 1960s. Some other forms of assistance did occur, however, as early as in the 1930s. For example, during the depression years in the 1930s, when Sweden was plagued by unemployment, credit schemes and government guarantees were made available to

the private sector to promote small, new entrepreneurial businesses. Also, in the 1940s, the government made some limited attempts to promote the country's high technology sectors, such as the aviation and nuclear power industries, through various procurement programs.

With the exception of these few cases, government assistance did not have any explicit industry focus; nor were the occasional assistance measures co-ordinated to serve a clear set of purposes. Instead, Sweden relied on macroeconomic and fiscal measures in its economic policy. It had developed an imaginative tax system, which used special deduction allowances and investment reserves to encourage investment in capital-intensive industries and to influence the timing of such investments. It relied on the country's flat wage structure across industries to facilitate industrial renewal and to encourage the development of skilled labour-intensive industries. In addition, a sophisticated labour market policy provided employment aid in the form of job training, and relocation grants, along with more traditional unemployment support. Otherwise, with the active support of the Swedish Trade Union Confederation (LO), Sweden tried to rationalize, adjust and develop its industrial base principally through the invisible hand of the free market forces.[5]

With this laissez-faire philosophy, Sweden's industry underwent both rapid and significant structural changes in the post-war years and, in particular, in the early 1960s. Paradoxically, the achievements and successes of these years triggered reactions that would result in increased government involvement and a clear trend toward a more comprehensive subsidy program for private industry.[6]

While the gains from this earlier industrial restructuring were spectacular, in particular in the 1960s, there were substantial costs too. Plant shutdowns, layoffs and forced movement of labour between regions accelerated significantly. The social costs were high and increasingly the focus of political debates.

The response of the Swedish government was to replace its labour market policy in part with an active regional policy in 1965. The regional programs were expected to ease the forced movement of labour by subsidizing ailing plants and by locating new plants in regions with chronic unemployment. In 1970 the program was extended by offering several forms of assistance, including loans, guarantees and grants for investment and working capital, training aids and transport subsidies. Funding of the program increased each year until 1974 and then dropped substantially the following year.

With the Swedish Trade Union Confederation as a major catalyst, initiatives were also taken in the late 1960s to adopt an active and comprehensive industrial policy. To this end the Swedish government established a range of institutions with the mandate to formulate and carry out such policies. Broad responsibility for program design and implementation was assigned to the Ministry of Industry, established in 1968. Other newly formed institutions included the Swedish Investment Bank (Sveriges Investeringsbank), with the role of promoting new and risky ventures; The Board of Technical Development (STU), to fund technical R&D for commercial application; the Swedish Developments Ltd. (Svenska Utvecklings AB), to develop, manufacture and market new products, methods and systems; and the State Company Ltd. (Statsföretag

AB), to act as a holding company for state-owned businesses and with the task of making these enterprises efficient and profitable as well as expanding the state sector of the economy, helping regional development and promoting employee involvement.

In 1970, programs for the small business sector were established by the Ministry of Industry. These programs offered assistance to companies with fewer than 500 employees, in the form of consulting aid, export promotion, and loans and loan guarantees. At the same time the Swedish Investment Bank established a program for small business loans to complement the state loans.

The first sectoral industry aid program was also launched in 1970. The textile and clothing industries and the hand-blown glass manufacturers were given assistance, primarily in the form of export promotion and employee training. This sectoral aid program was extended in 1972 to include the footwear and furniture industries and to offer other forms of assistance, such as loan guarantees, consulting aid, funds for rationalization, and so on. Shortly thereafter, the foundries, selected parts of the metalworking industry, the wood products industry and the fur goods industry became recipients of these support measures too.

The sectoral programs were intended to be temporary, limited to 3 or 4 years, to assist and ease industry adjustments and rationalization. However, all programs were subsequently prolonged. The programs were administered by the Ministry of Industry through its tripartite (government-business-labour) sectoral committees and, for the smaller and medium-sized firms, by the National Industrial Board (Statens Industriverk) established in 1973.

With all these institutions and programs, public subsidies to industry as a percentage of GNP were still lower in Sweden than in any other industrialized European country until the mid-1970s (Franko, 1980, p. 45). Moreover, these subsidies were based overwhelmingly on regional economic or national defence rationales; only marginally were they designed to promote the longer-term well-being of the country's industrial base.

Response to the Crisis: Analyses and Politics[7]

Prior to the crisis, in the early 1970s, the trade unions were already voicing their requests for industrial policy and planning with the purpose of securing high levels of employment in the future. Responding to this request, the Swedish government initiated a Royal Commission on Employment and Industrial Policy in March 1974. Both the directives to the Commission and the Commission's preliminary report – submitted in December 1975 – were strongly influenced by the healthy economy that prevailed in Sweden until the fall of 1976. In essence, the Commission concluded that providing employment for everyone who wants to work is the most important socio-economic goal of society. Therefore, the government must play an active role in shaping the country's industrial development, by actively promoting structural change in industry and in socially acceptable forms. Accordingly, the Commission advocated an active industrial strategy

and direct government subsidies to industry for investment, research and development, and export promotion.

Shortly after the right-of-center coalition came to power in October 1976, however, conditions in the Swedish economy started to deteriorate rapidly. Political urgency forced the government to present, in October 1977, an action plan for dealing with emerging dislocations in industry. Its four-part program included: improving the situation for the small business sector; easing adjustments for certain "crisis" industries; and rationalization of the various programs promoting industrial research and development. The fourth part of the program was to deal with issues in a longer-term perspective, in the form of an industrial strategy for Sweden. A plan of action for this part of the program was expected to be announced in the spring of 1979.

It is in this context that the Swedish government commissioned another study in March 1978, with the mandate to review and analyze Sweden's industrial structure and competitiveness. The Commission for this study – the Särskilda näringspolitiska delegationen (SND) – consisted of representatives from academia, business and labour, and it submitted its report in early 1979. In its conclusions and recommendations the Commission challenged the course suggested by the previous Royal Commission and took a position strongly in favour of an open laissez-faire economy (Särskilda näringspolitiska delegationen, 1979). Its suggested remedies were aimed at creating better conditions in which the market economy could function well and at improving the efficiency and effectiveness of the public sector. The need for structural change in industry was also recognized, and a shift of resources from the labour- and capital-intensive sectors to the knowledge-intensive sectors was suggested. For this purpose, the Commission proposed measures for generally improving Sweden's technical capability, including the creation of a Science Council and a centre for innovation to promote basic research and the establishment of government procurement programs for technically advanced turn-key projects.

Shortly before the government formally initiated the study by the SND, the Royal Swedish Academy of Engineering Sciences (IVA) in August 1977 submitted a proposal to the government for a major study of Sweden's technical capability and industrial competence. At the same time the Board of Technical Development (STU) also approached the government for funds for a similar study. Because of dissenting views within the government as to which of the two studies should be supported, the issue was resolved by commissioning both institutions to study the country's technical and industrial competence and to identify in specific terms industries or technologies where Sweden could maintain or develop competitive advantages.[8]

In principle, both studies agreed that Sweden needed an active industrial strategy. It was suggested that to secure the future competitiveness of Swedish industry, strengthening the knowledge base and improving Swedish industry's technical capability were the most important elements of any such strategy. An improved educational system, intensified co-operation between industry and universities, and increased resources for technical and scientific research were some of the more specific measures being suggested. Other specific recommendations included an emphasis on Sweden's growth sectors, with research and development, niche strategies and expansion to new

markets as key elements, and the development of new fields for future investments. It was recognized that the private and public sectors have to work together in developing a viable industrial strategy and that the government must play an important part in the development of new technologies, but it was pointed out that the choice of technologies and businesses should lie with companies, not government.

About the same time, on the initiative of Volvo Ltd. and the State Company Ltd. and with partial financial support from the government, another study was initiated, this time to be conducted by an "outsider", The Boston Consulting Group (BCG). Its report, submitted in the fall of 1978, offered the following diagnosis and remedies for Sweden's economic and industrial crisis:

> Sweden has long-term economic problems. These problems are not caused by the business cycle, nor by high currency or labour cost levels. The root of these problems is that portions of the industries on which Sweden has depended for its exports in the past are no longer competitive in world markets . . .
>
> Sweden's economic policy has to be adapted to fit these changed circumstances. Industrial policy must be developed to promote the structural evolution of the manufacturing sector . . .
>
> Successfully promoting this necessary restructuring of industry while minimizing the associated human hardship is the most important goal of Sweden's industrial policy (The Boston Consulting Group, 1978, pp. i and 56).

BCG concluded that the industries most affected by emerging competitive forces were iron ore, forest products, steel and special steels, and shipbuilding. With the entrance of new lower-cost competitors, in the long run these industries would not be able to provide historical levels of employment and exports for the country. Therefore, BCG proposed, investment in these industries must aim at rationalizing production and attempting to find defensible segments around which to consolidate for the future.

More important, however, the only long-term solution to these structural problems, BCG claimed, was an increase in output in other sectors. This might present a dilemma for Sweden. In the past, the more knowledge-intensive industries, such as mechanical and electrical engineering, transportation equipment, chemicals and pharmaceuticals, compensated for declines in other industries. For several reasons, this would be increasingly difficult in the future. Many other major industrialized countries would also be emphasizing these industries, making competition much more fierce. Also, the competitive environment in these industries was changing, including increasing manufacturing scale, increases in the pace and level of technology expenditures required, and the growth of system sales, which might present additional hurdles for a small country like Sweden.

Notwithstanding these considerations, Sweden's prospects for a successful structural adaptation of its industry should be quite feasible, concluded BCG. Sweden has a number of strong businesses in these growth industries, held mainly by 28 companies that account for 75 per cent of exports in these areas. The opportunities for growth should be there given these large companies, with their proven track records and

strong competitive positions. However, to succeed with such a strategy, a significant increase in total investments in industry would be required, particularly in marketing, application engineering and export development.[9]

Some of the major trade unions prepared their own reports on industrial policy. Based on a survey of its members, Sweden's Engineers Association (CF-STF) took a strong position in favour of an active industrial strategy and advocated making such policies industry-specific (Sveriges Civilingenjörsförbund, 1978). Some of their more specific suggestions included the need for government support for the smaller and medium-sized businesses, particularly in the area of market development, and a call for an active role for government in promoting technical development through government procurement programs and government-initiated turn-key operations.[10]

The White Collar Workers Union also took a strong position in favour of an active industrial strategy (Tjänstemannens centralorganisation, 1978). It was suggested that such a strategy should aim at easing society's adjustment to structural changes in industry, improving industry's competitive position, and promoting innovation among firms. The Union concluded, however, that Sweden's policies had unfortunately become overly defensive, and the need for an emphasis on offensive measures in industrial policy was strongly voiced. Specifically, it was recommended that Swedish industry should focus on the development of the technology and knowledge-intensive sectors and capitalize on its advances and reputation in international markets.

The numerous follow-up studies offered only slight variations on previous arguments and positions. The one study worth mentioning because of its original ideas was published in 1979 by a group of academics (Hedberg and Sjöstrand, 1979). The authors rejected previous studies as being too traditional, advocating past solutions, and failing to recognize the new dynamics in the Swedish society and its international relations. They took the position that industrial policy options should arise from the distinctive characteristics and comparative advantages of Swedish society, such as its culture and traditions, its high educational level, and its unique relationship between business and labour. Also, in its strategic positioning, Sweden should avoid direct competition with the major industrialized nations. From these assumptions it followed that industrial policy making should be decentralized; that there should be synthesis between macro and micro perspectives; that policies should be built around local structures and initiatives; that medium-sized flexible firms with smaller scale technologies should dominate the country's industrial base; and that alternative forms of entrepreneurship and businesses should be explored in promoting new ventures.

This multi-study approach to the search for viable policy options turned out to be a creative one, but it put the government in a peculiar position. Given internal conflicts on critical views and preferences, the government faced some politically delicate choices, such as the tradeoff between a laissez-faire and a more planned economy and whether the country's strategic posture should be dominated and driven by large multinational firms or by smaller flexible ones. Responding to some of the unique ideas – like BCG's proposal for managing the country's industrial portfolio, Hedberg and Sjöstrand's niche strategy

for avoiding competitive threats from dominant competitors, and the strongly technology-based strategies of IVA and STU – must have been equally difficult.

But there was overwhelming consensus on some critical issues, with clear signals about the preferred options. These included strong support for an active industrial strategy; the need to emphasize offensive measures in such a strategy; the need for direct government involvement and assistance in promoting innovation and R&D; and the need for broad-based, tripartite (government-business-labour) participation in the policy process.

The Resulting Strategy

As a result of deepening disturbances in the economy and growing awareness of the need for structural adjustment in industry, government subsidy programs underwent some rather drastic changes in the 1974-1982 period. The programs that emerged, however, hardly appear to have been guided by the Swedish government's original plans or intentions, nor do they seem to have been influenced by other industrial strategy options recommended for Sweden. Instead, the strategy turned out to be nothing more than rescue operations for industry, with employment preservation as the most important guiding principle.

Direct subsidies to industry escalated rapidly and were, by the end of the decade, among the highest in Europe, with estimates ranging around 2.5 per cent of GDP. All labour market programs continued to exist and gained renewed emphasis, while the newly established sectoral aid to the crisis industries expanded markedly (Lundgren and Ståhl, 1981, pp. 27-55).

As has been pointed out, Sweden has had a highly developed labour market policy for many years.[11] The government has assumed responsibility for training and retraining workers; providing information on jobs; developing placement programs for the hard-to-place; supervising and aiding labour mobility; providing unemployment compensation; and creating and maintaining jobs. This assistance had been targeted at individuals, to ease labour's adjustment and mobility in the marketplace. The emphasis shifted in the mid-1970s from assisting individuals to assisting companies, in an attempt to maintain industry capacity and preserve employment.

To this end, the so-called stockpiling program was introduced as the key mechanisms in the bridging policy. But during the prolonged recession, the costs of carrying the very large inventories that resulted from the program made it difficult for companies to maintain employment. Therefore, this program was phased out in the late 1970s.

The in-firm labour market training program, which was also established in the mid-1970s, was further and substantially extended during the decade. By successively increasing the subsidy from the original Skr 6 per person per hour to Skr 25 by 1977, the government effectively bought jobs for workers. Not surprisingly, the program attracted many participants: in the 1975-76 fiscal year, assistance was given to 267 firms and

12,800 employees; in 1976-77 to 1,230 firms and 109,000 employees, and in 1977-78 to 3,304 firms and 143,449 employees. With the improved performance of the economy, in 1978-79 this assistance finally dropped to 1,308 firms and 35,500 employees.

In 1977, two other labour market programs were also established to subsidize wages. One provided a 75 per cent wage subsidy for workers who would otherwise have been laid off. The other program, the senior workers aid program, provided a 10 per cent wage subsidy to textile workers over 50 years of age. Expenditures on these two programs in 1978 amounted to Skr 400 million and 240 million respectively.

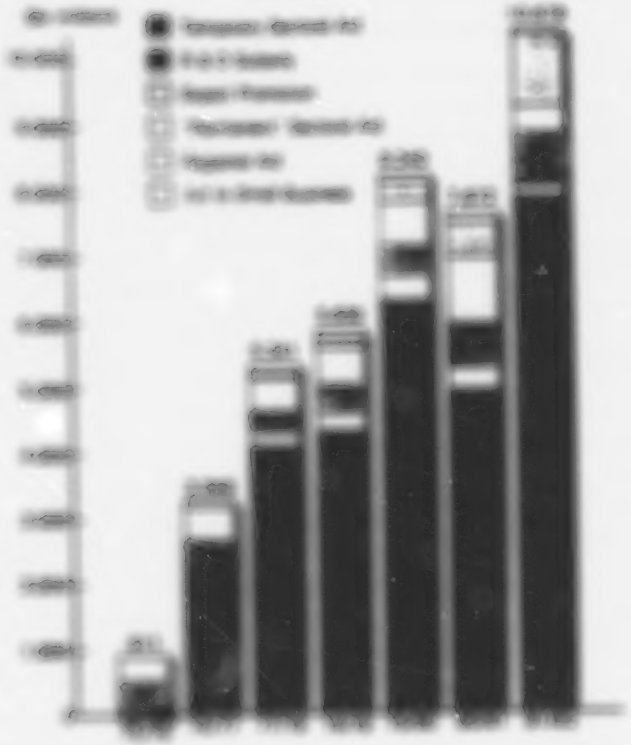
Two of the traditional labour market programs, the relief work and procurement programs, were also expanded in the latter part of the 1970s. The relief work program, which offered temporary employment for people laid off, cost Skr 788 million, and purchases under the procurement program amounted to Skr 231 million in total expenditures in 1977.

In addition to labour market programs, which were administered by the Ministry of Labour, other programs for aiding industry during the crisis years included sectoral programs, export promotion, research and development, and regional and small business programs.[12] The design and implementation of these programs were the responsibility (directly or indirectly through associated agencies) of the Ministry of Industry. As a result, these programs were regarded as those formally and more strictly constituting Sweden's industrial policy.

As shown in Figure 4.1, total expenditures for these programs, which in the 1975-76 fiscal year amounted to a modest Skr 911 million, escalated rapidly through the decade, reaching an unprecedented high of Skr 8,240 million in 1979-80. In accordance with the government's intention to cut back subsidies to industry significantly, announced in early 1980, total expenditures for these programs dropped to Skr 7,672 million in 1980-81. In 1981-82, however, expenditures again increased dramatically, to a new high of Skr 10,767 million. According to the Ministry of Industry, however, this was the result of previous decisions and commitments.[13]

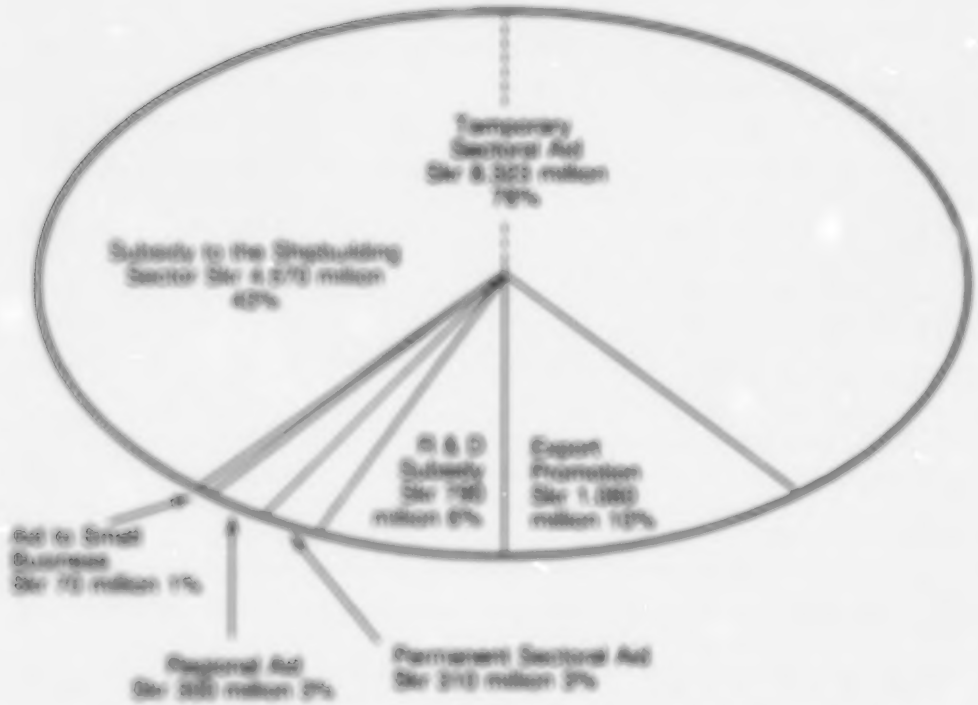
A clearly dominant share of these growing expenditures for industrial aid consisted of temporary sectoral support to crisis industries aimed at restructuring and rationalizing declining sectors. As shown in Figure 4.2, in the 1981-82 fiscal year, expenditures on this type of sectoral aid amounted to Skr 8,325 million, which then equaled 78 per cent of all expenditures for industry programs. For the whole period of 1975-76 to 1980-81 this share amounted to 71 per cent of total expenditures. The major recipient of this temporary sectoral aid was the shipbuilding industry, receiving Skr 4,570 million or 43 per cent of total program expenditures in 1981-82 alone. Other major recipients of sectoral aid were the iron and steel sectors and the pulp and paper industry (see Table 4.1). As part of the restructuring and rationalizing efforts within the program, partial state salvage takeovers occurred in the shipbuilding and steel industries. For example, in 1977 the Swedish Shipyard Ltd. (Svenska Varv AB), with 100 per cent state equity holdings and the Swedish Steel Ltd. (Svenska Stål AB), with 50 per cent state equity holdings, were established.[14]

[illegible]



Source: [illegible]

Figure 4.3
Subsidies to Industry, 1981-85
(net expenditures in current prices per fiscal year)


Temporary Sectoral Aid
Skr 8,323 million
79%
Subsidy to the Shipbuilding Sector Skr 4,570 million
43%
R & D Subsidy Skr 795 million 8%
Export Promotion Skr 1,080 million 10%
Aid to Small Business Skr 72 million 1%
Regional Aid Skr 355 million 3%
Permanent Sectoral Aid Skr 310 million 3%

Source: [illegible], *Industri och industripolitik 1982* (Stockholm: [illegible], 1982), p. 54.

Table 4.1
Major Subsidy Programs to Industry, 1979-80 to 1981-82
(in current prices per fiscal year)

	1979-80	1980-81	1981-82
		(Skr millions)	
Temporary Sectoral Aid – Total	6,344.8	5,046.1	8,323.3
Shipbuilding	4,319.6	1,857.1	4,370.1
Iron Ore	458.0	1,052.8	2,148.0
Steel	623.7	998.8	684.4
Pulp and Paper	245.9	334.0	299.6
State Company Ltd.	180.0	199.5	338.6
Uddcomb	18.0	211.9	121.6
Permanent Sectoral Aid – Total	375.9	369.5	314.3
Textiles and Clothing	314.7	313.0	256.5
R & D Subsidy	451.7	782.2	610.7
Regional Aid	731.2	1,033.1	301.9
Export Promotion	221.9	332.9	1,060.2
Aid to Small Business	115.0	128.3	60.2

Source: Industridepartementet, *Industri och industripolitik 1982* (Stockholm: Norstedts, 1982), p. 15.

The textile and clothing industries, which had been in a weak competitive position for years, were also heavily subsidized through a more permanent sectoral program (see Table 4.1). Also in this industry takeovers by the state occurred to rationalize the industry. (AB Eiser was established in 1978 with 100 per cent state equity capital.)

Together, these temporary and permanent sectoral industry programs amounted to around 80 per cent of all program expenditures during the period 1976-77 to 1981-82. Hence, some four-fifths of all industrial policy support measures were defensive in nature and went to the declining sectors.

Support for the growth sectors, in the form of export promotion and research and development subsidies, remained at a moderate level throughout the crisis period and until the early 1980s. Although export promotion program expenditures were increased from 4 to 10 per cent of total expenditures in 1981-82, they still amounted to only Skr 1,060 million (see Table 4.1). Support for research and development was even more limited, amounting to only Skr 610 million or 6 per cent of total expenditures in 1981-82. As Table 4.1 shows, this was in effect a decline from the previous year's high of Skr 760

million. Moreover, much of this research and development assistance was linked to such national needs as defence and energy.

Regional programs, which for many years have been important for the thinly populated Northern region, were extended for both new investments and current operations and applied to a much wider area. In fact, according to one government official, for a while everything outside of Stockholm and Gothenburg was classified as a depressed area. However, increasingly this regional assistance went to non-growth related areas for rescue and maintenance purposes, in the form of transport subsidies and tax reductions. After reaching a high of Skr 1,030 million in 1980-81, this program was cut back severely to only Skr 300 million, or 3 per cent of all subsidies to industry in the following fiscal year (see Table 4.1).

The small business program was the least significant among the programs through the period, amounting to approximately 1 to 2 per cent of the total industry support expenditures. While small business assistance was growing by 15 per cent annually in real terms during most of the 1970s, it dropped sharply from Skr 150 million in 1980-81 to Skr 70 million in 1981-82 (see Table 4.1). Also, it appears that most of the funds for this program were being channelled into slow-growth sheltered businesses and used to maintain existing business capacity rather than to promote growth.

In addition to these net expenditures for the various industrial program, government credits and guarantees also grew substantially over the crisis period. In the 1981-82 fiscal year these guarantees and loans amounted to Skr 39,977 million and Skr 20,701 million respectively (Industridepartementet, 1982, pp. 15-16).

Conclusion

While Swedish industrial policy and planning had a late start in comparison to its European neighbours, it had a well developed institutional and program structure in place for assisting industry at the beginning of the economic crisis in the mid-1970s. Also, when faced with the challenge Sweden revealed a commendable planning capacity in the search for solutions to the country's industrial malaise, as demonstrated by the numerous studies on the subject in the course of just a few years.

However, the resulting industrial strategy during the crisis years from the mid-1970s to the early 1980s appears not to have been influenced by any of the proposed policy options. Moreover, the policy measures adopted lacked most of the prerequisites of an effective strategy.

The Swedish government can hardly claim to have acted in anticipation of events – its actions were simply reactions to crises and political demands. Nor did the government appear to have acted in favour of a long-term and stable solution to the dislocations in the country's industrial base. Rather, the principal thrust of the government's policy turned out to be overly defensive, to support declining businesses and those in cyclical recession. Relatively little was done to support innovation, export development, new industries or growth sectors. There was also a lack of emphasis on

accelerating the generation of new businesses to replace the declining ones. Hence, Swedish industrial policy can be characterized during this period as a series of holding actions aimed at stemming the tide of bankruptcies and unemployment.

After initial paralysis and confusion in policy actions, the government finally started to move more resolutely, but then it appears to have intervened far too excessively in industry by trying to plan output and investment selectively by sector. While there had been some dialogue and co-operation between government, business and labour in the process, it occurred mainly in the declining sectors and concerned defensive measures. Initiatives from business for promotion and support of growth areas and offensive measures were largely ignored.

In addition, cumulative events shaped Sweden's industrial policy planning organization into a less effective format. Although the Ministry of Industry increasingly assumed responsibility for the management of the country's industrial future, the explosion of subsidies, credits, guarantees and equity capital were channelled to industry, directly or indirectly, through several ministries and hundreds of different accounts. Also, while broad participation in the search for viable strategy options was invited, the government's actual policies do not appear to have rested on consensus and collective commitment.

The intriguing question is why the Swedish government acted the way it did. One possible answer might be that instability and frequent change in government resulted in indecisiveness and paralysis. Inaction and crisis management was seen as the politically convenient route, or perhaps the only possible route, at the time. The multiple study approach in the search for policy options and the subsequent conflicting perspectives on appropriate remedies probably reinforced this defensive posture.

Another plausible explanation for the government's unfortunate choice of policy measures was given by Ulf Jacobsson, an Economic Ministry official at the time: "While the defensive measures of protection, subsidies and aids for restructuring had the clear rationale of political necessity, the reluctance to augment them with measures to stimulate growth sectors and export was that Sweden had gotten its macroeconomic management wrong" (Franko, 1980, p. 47). The official view for quite a while was that the competitiveness problem would be taken care of by the devaluations of 1976 and 1977, together with some reinforcement of general moves to improve labour mobility. When the realization finally came that there was also an urgent need for offensive measures, the sheer magnitude of the crisis and the resulting political urgency already pre-empted the possibilities for such a reorientation.

Bruce Scott has made the observation that developed industrialized nations have become overly distribution- and security-oriented welfare states, with their priorities for short-term consumer welfare, income redistribution and social security rather than industrial growth, productivity and international competitiveness. In his experience, "such welfare states will suffer from lower levels of saving and investment and from a variety of disincentives to work. Entitlements, progressive income taxes, and subsidies for consumption will make them increasingly less competitive as locations for any industries where product values allow international trade" (1982, p. 74).[15] This appears

to be a reasonably realistic portrayal of Swedish society at the time and thus contributes to a better understanding of the government's choices and actions during the country's economic crisis of the 1970s.

Notes

1. For an excellent review of this dynamic concept of comparative advantage see Scott and Lodge (1985, Chapter 2).

2. This definition of the term industrial policy is adopted primarily from Adams and Bollino (in Adams and Klein, 1983, pp. 13-20) and from Leone and Bradley (1981). Similar definitions of the concept are also offered by Franko (1980), Magaziner and Reich (1982), Reich (1982) and Scott (1982).

3. Various similar frameworks for industrial policy are discussed by Scott (1982), Scott and Lodge (1985) and D'Cruz and Fleck (1985).

4. For a detailed discussion on effective industrial policies see Horváth (1985). For further supportive arguments see also the National Economic Development Council (1981), Magaziner and Reich (1982) and Scott (1982).

5. A comprehensive summary of Sweden's economic policy measures prior to the late 1960s is provided by The Boston Consulting Group (1978, Appendix 13).

6. For a review of these new subsidy programs see Lundgren and Ståhl (1981) and The Boston Consulting Group (1978, Appendix 13).

7. An excellent review and analysis of actors and politics in the making of Sweden's industrial policies is given in Ramsin and Stevrin (1980).

8. These studies are reported in Ingenjörsvetenskapsakademien (1979) and Styrelsen for teknisk utveckling (1979).

9. For further details on diagnoses and suggested remedies for Sweden's industrial crisis, see The Boston Consulting Group (1978).

10. In a later publication the Association articulated more clearly and in detail its position on an industrial strategy for Sweden. Here, the Association expressed a strong preference for a laissez-faire economy, which the government's role should be limited to creating a supportive climate for free trade and competition. It is acknowledged, however, that direct government support is needed for technological renewal and development, which is regarded as the key element in the country's industrial future (Sveriges Civilingenjörsförbund, 1983).

11. For details on Sweden's labour market policy and programs see Lundgren and Ståhl (1981, pp. 32-35).

12. A detailed review of these programs is presented in Industridepartementet (1982).

13. All figures on industrial programs referred to here are net expenditures, i.e., actually realised expenditures. Often, however, industrial support is estimated as gross figures based on decision to provide support, including subsidies, loans and guarantees.

14. Sweden's earliest state-owned businesses were companies utilizing the country's natural resources. Thus, not surprisingly, in 1977 around 70 per cent of the assets of the State Company Ltd. (Statsföretag AB) were in the mining, steel, and pulp and paper industries (The Boston Consulting Group, 1978, Appendix 13, p. 40).

15. A detailed discussion of distribution-oriented welfare states and their priorities and strategies can also be found in Scott and Lodge (1985, pp. 124-131).

Chapter 5

The Recovery – A Renaissance for the Swedish Model?

In September 1982, the Social Democratic party returned to office under the leadership of Olof Palme. It was faced with a dual problem in correcting the poor performance of the economy: the structural imbalances that had accumulated over a decade and the weak conjunctural performance caused by inappropriate demand-management policies in early 1982 (OECD, July 1982 and February 1984). These demand-management policies were based on the assumption of a sustained recovery at home and abroad, which did not materialize. Instead, economic activity slackened in mid-1982, resulting in unemployment and in deficits in the budget and the current external account.

To deal with this dual problem, the new government embarked on a wide-ranging program designed to improve performance and break with past trends. As pointed out in the OECD economic survey of Sweden, encouraging results had already emerged in 1983, signaling the prospects for a definite turnaround (February 1984; see also Industridepartementet, 1984). By early 1985 the economy was close to or above the level of its performance in the golden year of 1974 (OECD, May 1985; Industridepartementet, 1985), and in mid-1986 Sweden was referred to as the new "industrial powerhouse" of Europe (*Business Week*, August 18, 1986).

This chapter elaborates on the accomplishments of the Swedish economy and industry since 1982. It describes the new strategy launched by the Palme government and reviews the results of that strategy. The adaptation of Swedish firms and industry to the competitive environment of the 1980s is emphasized in this review. Then we examine the optimistic outlook and harmonious socio-political relations, which have made successful implementation of the strategy possible. Finally, we look at Sweden's new economics of the "third way".

The New Strategy and Implementation

A key element in the new strategy was a 16 per cent devaluation of the krona, with the objective of achieving an export-led and investment-fed recovery.[1] The size of the devaluation was not without risk and gave rise to some controversy in Sweden (OECD, February 1984 and May 1985). It was believed that, externally, it could have sparked a chain reaction of competitive devaluations, while domestically, the possible inflationary effects of the devaluation caused concern.

It was felt, however, that further public sector expansion to support employment or extreme fiscal restraint to restore external balance would be insufficient as solutions to the country's economic problems. Instead, the government chose to make the supply side of the economy more flexible, emphasizing production and holding back consumption. As the OECD economic survey of Sweden put it, "the key words were for Sweden to produce and save its way out of the crisis" (May 1985, p. 11).

An integral part of the strategy incorporated a tighter stance on demand-management policies as well. Fiscal policy was moved toward restriction as the expansionary effects of the devaluation reached the domestic economy. Private consumption was held back, both to improve the trade balance and make room for investments. Similarly, restraint was exercised in government expenditures, and by 1984, for the first time since World War II, the ratio of general government outlays to GDP declined – it fell to 65 per cent from its previous high of 68 per cent.

Monetary policy was tightened too, with the purpose of maintaining interest rates at levels that would encourage a capital inflow to finance the current account deficit. In addition, monetary policy was designed to limit the monetary financing of the budget deficit, by conducting monetary policy in a less regulatory and more market-oriented way.

Action was also taken to correct deep-rooted structural imbalances. Industrial policy was shifted away from subsidizing ailing firms and industries and toward promotion of forward-looking transformation of industries. At a more general level the government aimed at creating favourable conditions for long-term growth. Realizing the divergent views being expressed in society in terms of laissez-faire versus interventionist approaches, and between support for large firms versus that for small ones, the government tried to adopt a balanced approach that fell somewhere between these extremes. It opted for a strategy that was, on the whole, less interventionist and that was based on the strengths and advantages of both large and small firms.

Industrial policy was made up of three distinct but complementary parts, one aimed at providing better conditions for industrial growth, the second at promoting innovation and industrial renewal, and the third at creating a supportive climate for sustained industrial expansion (Industridepartementet, 1985, p. 10).

The devaluation of the krona was seen as the key mechanism for supporting industrial growth. Making Swedish industry more competitive was expected to influence the growth potential of the country's important material-based sectors. Following the 1982 devaluation a Special Investment Fund had also been introduced, to ensure that the

rise in corporate profits would be channelled into capital investments rather than used for dividends or financial transactions.[2] In addition, substantial public investments had been made in selective areas – in the mining and energy sectors – to aid them in new ventures and growth.

The highest priority for industrial policy was to discontinue defensive assistance to declining firms and industry sectors. To this end, massive support was given in the 1982-83 fiscal year to shipyards, the steel and textile sectors, and to selected state-owned enterprises to resolve, once and for all, the structural dislocations of these sectors and firms. This support was given for restructuring developments, and it was made clear that no further assistance should be expected for adjustment or contraction purposes in the future.

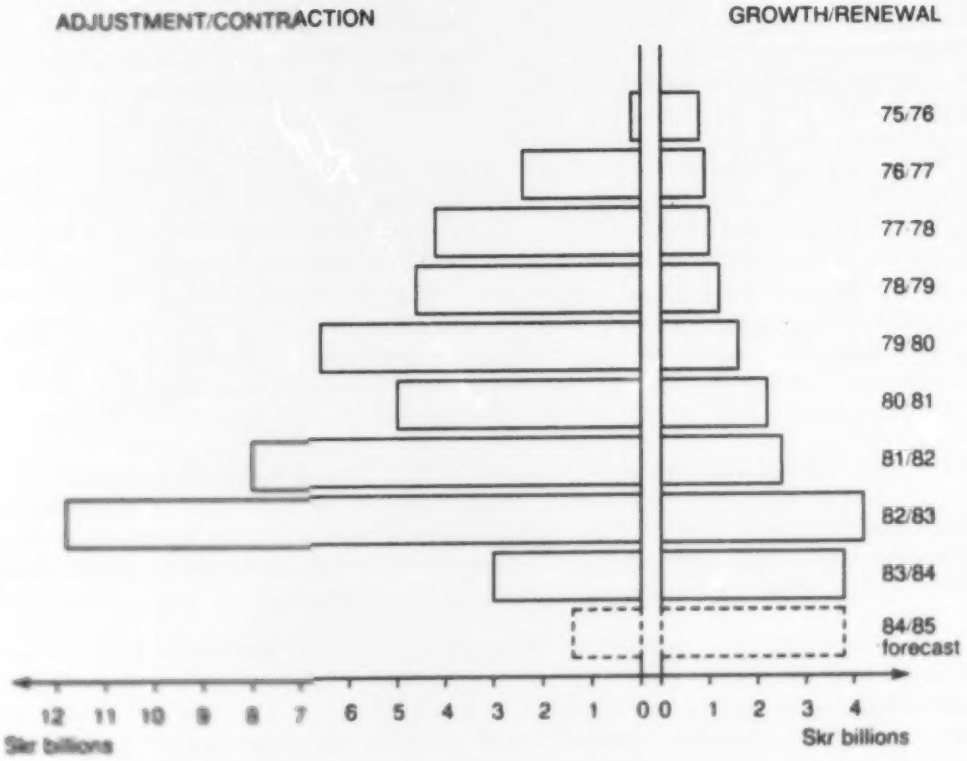
Instead, the emphasis was put on offensive measures – on forward-looking measures for industrial renewal. These measures aimed primarily at promoting innovation and technological change and covered a wide range of measures: direct support to industrial R & D, innovation and creation of new businesses, fiscal incentives to stimulate technology-related expenditures within firms; and measures for improving the financial markets. While much of this assistance was of a general or non-selective nature, some of the important selective measures included programs for the advancement of information and communication technologies and for exploration and development of offshore resources.

Among other positive measures, support and promotion of exports and assistance to small business also received increased emphasis. For example, the taxation rules for small business were altered to increase the possibilities for raising equity capital. Moreover, small business was allowed a special deduction from corporate tax amounting to 70 per cent of the sum paid out as dividends to shareholders.

In terms of creating better conditions for industrial expansion, policy measures included such actions as deregulation, more co-operative business-government relations, and removal of bottlenecks and other restrictions to improve the flexibility and adaptiveness of Swedish industry. Some of the early initiatives in this area included simplification of the regulatory framework for business and initiatives for improving the supply of skilled labour, in particular engineers.

Given the government's ambition to put more emphasis on industrial growth and renewal, while at the same time following through with the necessary rationalisation in the declining sectors, total governmental subsidies to industry were increased dramatically, from about Skr 11 billion in 1981-82 to a new high of Skr 17 billion in fiscal year 1982-83 (Industridepartementet, 1985). Expenditures on the positive and forward-looking measures – for R & D, exports, small enterprises, and regional development – amounted to close to Skr 5 billion in 1982-83, nearly a doubling from the previous year, but still amounting only to 27 per cent of total industry support for that year. Subsidies for adjustment and contraction thus were still the dominant force in industrial support in 1982-83, amounting to 73 per cent of all subsidy expenditures (see Figure 5.1).

Figure 5.1
Structure of Industrial Support, 1975-76 to 1984-85
(Skr billions per fiscal year)



Adjustment/Contraction = Temporary support + sectoral support.
Growth/Renewal = Support for R & D, regional development, exports, and small enterprises.

Source: Industridepartementet, *Industri och industripolitik 1985* (Stockholm: Liber, 1985), p. 18.

In the following year, however, support for the declining sectors for adjustment and contracting was cut drastically, to about Skr 3.5 billion, compared with in excess of Skr 12 billion the previous year. At the same time, support for growth and renewal was kept at nearly the same level as the previous year, amounting to close to Skr 5 billion. The result was that total industry support declined to around Skr 8 billion in the 1983-84 fiscal year, down by over 50 per cent from 1982-83. This time support for defensive purposes was limited to 45 per cent of total support, while offensive measures were increased to 55 per cent.

As shown in Figure 5.1, the plan was to maintain this trend for 1984-85 as well. Total industry support was estimated to amount to only about Skr 5-6 billion, of which three-quarters was to be used for industrial growth and renewal. Sectoral support for ailing sectors was estimated to amount to slightly over Skr 1 billion, or a quarter of total industrial support.

As it turned out, for both 1984-85 and 1985-86, total industry support amounted to slightly over Skr 6 billion each year. On average, about two-thirds of this support, or close to Skr 4 billion, was for positive and forward-looking measures, and somewhat more than Skr 2 billion was for defensive measures. However, previous commitments by the government, for redeemed credit guarantees for prior ship transactions, added another Skr 3 billion to the government's total industry support expenditures for both years (Industridepartementet, 1986 and 1987).

The trend in subsidies to industry has thus been clear for the last three years. In addition to a drastic cutback of total support, from a high of 2.8 per cent of GNP in 1982-83 to a 1.2 per cent average for the last three years, there has also been a pronounced shift in emphasis toward growth and renewal at the expense of defensive assistance.

Results of the Strategy: Economic Performance

Only a year after the reorientation, it was clear that the initial phase of the strategy had been rather successful and that Sweden was finally in a position to make a decisive break with its disappointing past economic performance (OECD, February 1984).

With the sharp improvement in external competitiveness, there have been substantial gains in market share at home and abroad. Exports of goods and services grew by nearly 12 per cent (in volume) in 1983. With imports remaining roughly unchanged during the year, the trade balance improved significantly – it shifted from a deficit of Skr 6 billion in 1982 to a surplus of Skr 11 billion in 1983. Although offset by steep increases in interest payments on outstanding debt, the current account deficit was also reduced considerably: from Skr 22 billion in 1982 to about Skr 6 billion in 1983, that is from 3.5 per cent to less than 1 per cent of GDP.

Although industrial production picked up and profits rose steeply (see also Industridepartementet, 1984), investments in manufacturing continued to decline in 1983, although at a slower pace than the year before. As a result, unemployment

continued to increase slightly, to 3.5 per cent compared to 3.1 per cent in 1982. Reflecting the price impact of the devaluation, as expected, domestic demand declined somewhat in 1983. Nevertheless, inflation increased to 8.9 per cent, of which about four percentage points were attributable to the devaluation.[3] Overall, however, real GDP grew by 2.5 per cent, compared with 1.3 per cent for OECD European countries and 2.2 per cent for OECD as a whole.

The performance of the economy continued to improve in 1984 (OECD, May 1985). Average GDP growth for the year rose to 3.4 per cent, clearly outperforming other European countries, which had average growth of 2.4 per cent for the year. However, Sweden's GDP performance appeared less advantageous in comparison with the 4.9 per cent growth for the OECD as a whole and the spectacular GDP growth of the United States and Japan, at 6.8 per cent and 5.8 per cent respectively (Industridepartementet, 1986, p. 24).

Industrial production was especially strong, increasing by 7.1 per cent in 1984, against the 4.5 per cent increase in 1983 (OECD, May 1985; Industridepartementet, 1985). Manufacturing exports also grew by a respectable 9 per cent (in volume) in 1984 and were particularly strong in comparison with the other Scandinavian countries and the United States, resulting in a Skr 25 billion surplus in the trade balance (up from Skr 14 billion in the previous year). With the service balance also improving somewhat, the current account also registered a small surplus in 1984: Skr 3.2 billion, as compared to a Skr 6 billion deficit the previous year.[4]

Boosted by the surging exports and by rising profits and improved cash flows, business investment escalated in 1984—new plant construction jumped by 42 per cent and investment in industry increased by 17 per cent. Public sector investment, on the other hand, continued to decline, by more than 3 per cent for the year. Labour market conditions improved, and unemployment fell to 3.1 per cent of the labour force.

Cost and price performance was, however, disappointing in 1984. Contrary to expectations and projections, wage costs in manufacturing increased by about 10 per cent over the previous year. Fortunately, however, because of a sharp productivity increase (up 7 per cent), unit labour costs in manufacturing rose by only 2 per cent. Although inflation edged downward to 8 per cent in 1984, it was higher than the OECD average of 5.3 per cent.[5]

With the slowdown in world trade, the pace of the Swedish recovery slackened somewhat in 1985 (Industridepartementet, 1986). Real GDP grew by a more moderate 2.3 per cent, which was the same as for the European members of the OECD but slightly below the 2.8 per cent average GDP growth for all OECD members.[6] Industrial production increased but at a slower rate of about 3 per cent. Growth in exports of goods and services dropped to some 3 per cent and, with imports climbing at a much faster rate (9 per cent in volume), the current account of the balance of payments had a deficit of around Skr 9 billion. The rate of inflation, however, finally showed a more positive trend and declined by over 2 per cent to 5.8 per cent in 1985. As agreed by the various labour market participants, wage increases were limited to 5 per cent. Another encouraging

trend was that, with record profits and cash flows in industry, industrial investments jumped by 19 per cent to reach the highest level since 1978.

The improvement in Sweden's economic performance continued in 1986. It was helped, in addition to the new strategy, by falling oil prices, the lower dollar exchange rate and reduced international interest rates (*Financial Times*, June 9, 1986; Industridepartementet, 1987; OECD, April 1987). Gross domestic product grew by some 2 per cent, close to the overall OECD level of slightly over 2 per cent. Exports of goods grew somewhat faster than in 1985, at 3.4 per cent, and the trade balance, which had improved continuously since 1983, reached a high of Skr 34 billion in 1986, more than double its level of Skr 16 billion in 1985. Although there was some deterioration in the service account, the balance of payments recorded a current account surplus of 1 per cent of GDP or Skr 7.6 billion in 1986, against a deficit of about Skr 10 billion the previous year.

Industrial production continued to grow at a rate of 2 per cent, as in 1985, while the volume of investment in industry rose by 17 per cent, a slight drop against the 19 per cent high in 1985. Unemployment was further reduced, by 0.1 per cent, to 2.7 per cent of the labour force. Productivity in industry increased, although by a more modest 2 per cent in 1986, but domestic wage increases continued to exceed wage increases abroad. In manufacturing, wages grew by 7 per cent as the result of negotiated increases and wage drift.

Inflation, which had been declining gradually since 1983, fell further to just above 3 per cent in 1986. While the gap between inflation rates in Sweden and abroad slowly narrowed in 1985 and 1986, it still remained higher than in many other OECD countries.

One of the undoubted successes of the Swedish government in the last four to five years has been to prune the bloated state budget deficit. With the assistance of the weaker U.S. dollar and lower interest rates, there was a significant reduction in the government budget deficit, to 1.4 per cent of GDP in 1986 from the high of 6.3 per cent in 1982. This was accomplished without an increase in the overall tax burden.[7] As concluded in the OECD economic survey of Sweden, given the comparatively large share of public expenditure in Sweden's GNP (65 per cent in 1985), this is an especially noteworthy achievement (April 1987, pp. 24-26).

Renewed Cost Competitiveness

As already pointed out, the key element in the Swedish government's new strategy was a 16 per cent devaluation of the krona. Starting with an exchange rate adjustment by the previous government as far back as 1981, the krona had undergone continuous depreciation until 1986, after which some recovery took place. By 1986, the decline since 1980 amounted to about 50 per cent in relation to the U.S. dollar. Only France had a comparable depreciation in its currency, as can be seen in Table 5.1, although most of the other countries also experienced exchange rate declines relative to the U.S. dollar.

Table 5.1
Exchange Rates, Selected Countries, 1980-1986 (value of foreign currency relative to the U.S. dollar, 1977 = 100)

	1980	1981	1982	1983	1984	1985	1986
Sweden	105.6	88.2	71.1	58.2	54.0	51.9	62.7
Canada	90.9	88.6	86.1	86.2	82.0	77.8	76.5
France	116.5	90.4	74.7	64.5	56.3	54.7	71.0
West Germany	127.9	103.0	95.6	90.9	81.6	78.9	107.0
Japan	118.7	121.4	107.5	112.7	112.8	112.3	159.1
United Kingdom	133.3	116.0	100.2	86.9	76.6	74.4	84.1

Source: "International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1986," in *U.S. Department of Labor News*, June 15, 1987.

The extent of the exchange rate depreciation of the krona and other currencies was reflected in major shifts in levels of hourly compensation in manufacturing in U.S. dollars. This can be seen for selected years between 1980 and 1986 in Table 5.2. Sweden and West Germany experienced two of the largest changes over the period, from almost 30 per cent above the United States in 1980 to 25 per cent below in 1985. The contrast between the experience of the 1980s and the earlier period of high inflation and an overvalued exchange rate in Sweden can be seen in Table 3.2.

The net result of differential rates of inflation, exchange rate changes and differential productivity performance can be seen in Table 5.3, which shows unit labour costs in the same six countries. The table suggests that the extent of the decline in the value of the krona pulled Swedish unit labour costs from 67 per cent above the United States in 1980 to about 8 per cent below by 1984 (which was the low point for Sweden on a comparative basis). Since then a renewed acceleration in costs, because of larger wage increases in Sweden than abroad, and a recovery in the value of the Swedish currency probably brought Swedish unit labour costs back above the U.S. level by 1986.

There is no question that the exchange rate in Sweden was in fundamental disequilibrium by 1980 and in the latter part of the 1970s. As mentioned previously, the size of the subsequent devaluations posed risks and gave rise to controversy (OECD, February 1984 and May 1985). On the external side, it was believed that they might prompt competitive devaluations. However, extensive disequilibrium had been present in other countries as well, and large changes in key currencies, such as the U.S. dollar and the Japanese yen, took place quite independently of developments in Sweden. On the domestic side, devaluation placed some upward pressure on prices of internationally traded products, but Swedish domestic monetary policy would have been a far more important influence on domestic prices and cost trends within Sweden than even a large

devaluation. This is because a large and growing share of GDP is produced and sold domestically in local markets, relatively unaffected in the short term by changing prices in the internationally traded sectors.

Table 5.2
Relative Hourly Compensation of Production Workers in Manufacturing, Selected Countries
(United States = 100)

	1980	1985	1986
Sweden	127	75	93
Canada	87	85	84
France	93	60	80
West Germany	126	75	103
Japan	57	50	73
United Kingdom	75	48	57

Source: U.S. Department of Labor, *Hourly Compensation for Production Workers, 1975-1986* (Washington: February 1987).

Table 5.3
Indices of Labour Costs Per Unit of Output, Manufacturing, Selected Countries
(United States = 100)

	1980	1984
Sweden	167	92
Canada	113	115
France	129	77
West Germany	134	82
Japan	75	59
United Kingdom	197	118

Source: D.J. Daly and D.C. MacCharles, *Focus on Real Wage Unemployment* (Vancouver: The Fraser Institute, 1986), p. 70.

An important factor in the dramatic recovery of the Swedish economy was thus the significant recovery in output per hour, after a period of sluggish change in the latter part of the 1970s. The distribution of the large productivity increases during the 1980s was also important, as a substantial part of productivity gains was passed on to the buyers of Swedish manufactured products, which permitted increased market shares (see Table 5.4). Part of the productivity gain was also reflected in larger corporate profit margins and larger total profits in manufacturing, which recovered from the depressed levels of the 1970s.

Table 5.4
Real Output Per Hour and Real Hourly Compensation in Manufacturing, Sweden, 1980-1986
(1977 = 100)

	1980	1982	1984	1986
Output Per Hour	112.7	116.5	131.0	136.4
Real Compensation Per Hour	101.8	99.2	99.2	104.0

Source: "International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1986," in *U.S. Department of Labor News*, June 15, 1987.

The profitability of Swedish manufacturing was also increased by the modified exchange rate policies. The extent of the depreciation in the Swedish krona after 1980 brought Swedish compensation per hour and unit labour costs from one of the highest in the world to one of the lowest (apart from Japan) among Sweden's trading partners. The recovery of Sweden's competitive position as a result of a significant increase in productivity and a series of exchange rate depreciations was thus a key factor in the recovery in corporate profits, investments and exports.

Industrial Transformation

The new strategy, supported by the recovery of world trade, has improved Sweden's economic performance dramatically over the past four to five years. Thus, in the short term the success of the new strategy has been undeniable. Sustainability of this progress toward a more balanced economy, however, will not only depend on adequate cost competitiveness and appropriate macro policies, but will also be conditioned by the quality of the adjustment process in Swedish industry or, in other words, by the underlying health of the country's industrial base.

The years between 1974 and 1982 were disappointing in this respect. Attempts at adaptation resulted mainly in a slimming of the country's industrial base and in the maintenance, through massive subsidies, of vast amounts of labour and capital in structurally depressed industries. However, these trends masked some important underlying transformations. Corporate responses to internal and external shocks included some renewal and innovative processes, which contributed to a relatively sustained expansion of Sweden's engineering sector. As well, attempts at strategic repositioning and technological revitalization were initiated in some of the depressed sectors.

With the government's new strategy since 1982, this move to industrial transformation has gathered momentum. The traditional sectors were further slimmed and restructured, aimed at revitalization and increased competitiveness, and with the emphasis on technological progress there was a marked shift toward the knowledge-intensive sectors in the country's industrial base.

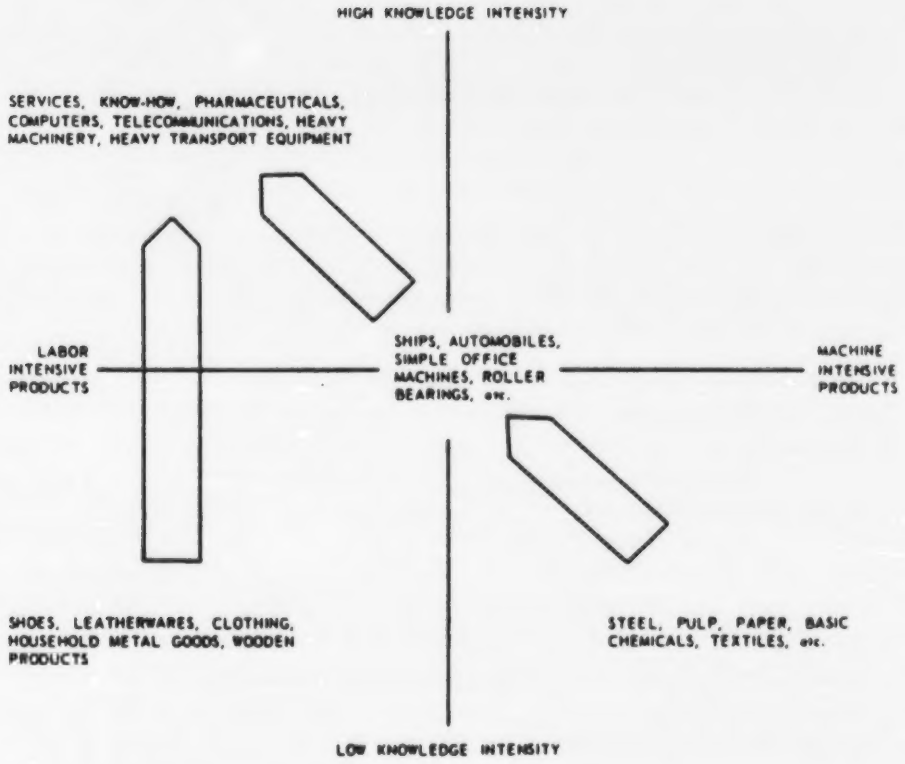
By 1986, a number of basic and traditional sectors saw a considerable reduction in activity. For example, in textiles, iron and steel, the level of employment was halved in 10 years. In shipbuilding the scaling down was even more dramatic; the employment level decreased by nearly 80 per cent in the past decade (Statistics Sweden).

In pulp and paper, one of Sweden's most important traditional sectors, restructuring and adaptation took a different form. Here the activity level increased,[8] by securing a larger share of the pulp and paper market in Europe at the expense of other European, Canadian and U.S. manufacturers and by capturing a valuable segment of the U.S. newsprint, magazine paper and specialty pulps market (Poyry, 1985). This was accomplished by making the Swedish forest companies bigger and better and thereby achieving economies of scale[9] and by emphasizing production and exports of newsprint and other types of paper rather than basic pulp (Noble, 1986). Technological renewal also played a critical part in the industry's improved competitiveness.[10]

The shift from process-based to product-based technology, that is, toward high-technology based goods, has been particularly pronounced in Sweden's industrial transformation, and increasingly so since 1982 (see Figure 5.2). Changes in corporate strategy were at the apex of this transformation process, involving such elements as seeking market dominance in well-defined niches and engagement in new growth sectors, where quality and high technology content, rather than price, are the key success factors; attainment of an appropriate scale of operations with flexible production systems; aiming for continued and expanded internationalization of operations (Industridepartementet, 1985 and 1986; OECD, May 1985).

The emergence of low-cost producers in the newly industrialized countries has forced Swedish corporations into niches of knowledge-intensive goods, where proprietary technology, product quality and service are the relevant competitive factors. This has resulted in, among other consequences, increasing adoption of flexible manufacturing systems, allowing efficient production of small batches adapted to meet the changing

Figure 5.2
Transformation of Sweden's Industrial Structure, 1975-1985


HIGH KNOWLEDGE INTENSITY
SERVICES, KNOW-HOW, PHARMACEUTICALS, COMPUTERS, TELECOMMUNICATIONS, HEAVY MACHINERY, HEAVY TRANSPORT EQUIPMENT
LABOR INTENSIVE PRODUCTS
SHIPS, AUTOMOBILES, SIMPLE OFFICE MACHINES, ROLLER BEARINGS, etc.
MACHINE INTENSIVE PRODUCTS
SHOES, LEATHERWARES, CLOTHING, HOUSEHOLD METAL GOODS, WOODEN PRODUCTS
STEEL, PULP, PAPER, BASIC CHEMICALS, TEXTILES, etc.
LOW KNOWLEDGE INTENSITY

Source: OECD, *OECD Economic Surveys, Sweden* (Paris: May 1985), p. 43.

requirements of the market. As a result, the use of CAD/CAM techniques in manufacturing in Swedish industry is today among the highest in the world.[11]

The move to products with higher value-added and more knowledge content is reflected in the very rapid growth of research and development investment over the last decade – it has more than tripled since 1975 (Industridepartementet 1986 and 1987).[12] R & D expenditures in Swedish industry was in excess of Skr 11 billion by 1983, and total scientific technical research expenditures (public and private) were over Skr 18 billion, or about 2.3 per cent of GDP.[13] R & D now represents almost 10 per cent of total industry value-added, compared with 4 per cent in 1973 (Industridepartementet 1985; OECD, May 1985).[14]

Already one of the most internationally oriented countries in the OECD area, Sweden's direct investment abroad escalated quite substantially after 1982 (Industridepartementet, 1986). It increased from a stable level of around Skr 5 billion per year during the 1970s to nearly Skr 9 billion in 1982 and to Skr 20 billion in 1985, of which about 40 per cent is in the manufacturing sector.[15] This investment corresponded to some 60 per cent of total industrial investment in Sweden in recent years.[16] The United States received an increasing share of this investment – more than 50 per cent in 1985 – followed by the Scandinavian countries, with some 15 per cent.

Continued internationalization has played an important role in the technology strategies of Swedish industry. On the one hand, it has allowed Swedish firms to monitor technological progress in advanced markets. This international networking has always been critical to Swedish industry because, given its limited size and resources, much of its industrial technology has had to be acquired from abroad (Ohlsson, 1969; Industridepartementet, 1985). On the other hand, it has allowed many Swedish firms to become dominant in knowledge-intensive sectors by making it possible to spread heavy R & D costs over a larger market (OECD, May 1985).

As a result of this industrial renewal and transformation Sweden has shown an increasingly positive surplus in low and medium technology categories. Although it still has a limited deficit in the high technology category, the evolution of the trade balance in this category also appears more favourable than for other countries in Europe. In fact, as pointed out in the OECD economic survey of Sweden, "'Sweden' has had a remarkably low rate of dependence on high-tech imports compared to the value-added of the manufacturing sector – a position which is matched only by the United States" (May 1985, p. 51).

The important sectors in high technology exports are automobiles, electrical and non-electrical machinery, electronics and telecommunications equipment and, more recently, pharmaceuticals. Moreover, responding to receptive domestic markets and building on previous strengths in metals, machinery, surface treatment, and other sectors, Sweden has managed to develop a strong industrial robots industry and is now the third largest producer of such products after Japan and the United States (Industridepartementet, 1985 and 1986).

The technological balance of payments, which was roughly in balance in the 1960s and 1970s, also became positive in the 1980s – it had a surplus of Skr 0.3 billion in 1983 (OECD, May 1985, p. 51). The balance with the United States turned positive for the first time in 1983, and the traditional surplus with Japan improved strongly in recent years. Sweden has thus become one of the few net exporters of technology in the OECD area and is now among the three most technology-independent OECD countries.[17]

One measure of the health of industry and its viability is the level of profitability and the strength of the balance sheet. In terms of profitability there have been dramatic improvements since 1982, with profitability levels in most sectors at or above the levels of the golden year, 1974 (Industridepartementet, 1985, 1986 and 1987). In particular, Sweden's large multinational industrials have been doing very well, clearly outperforming their counterparts in other countries. As shown in Table 5.5, Swedish

Table 5.5
Comparative Performance of Fortune's 500 International Corporations, Country Medians

	Average Annual Total Return to Investors* (per cent)			
	Year Ended May 1986		May 1981-May 1986	
	in U.S. dollars	in local currencies	in U.S. dollars	in local currencies
Sweden	144.23	102.23	29.82	40.72
Australia	99.22	84.39	22.56	34.53
Switzerland	89.81	41.38	18.46	16.89
West Germany	79.80	35.67	23.03	22.99
Japan	78.24	23.12	24.36	18.31
Belgium	71.41	31.18	n.a.	n.a.
France	72.46	35.98	25.35	32.77
United Kingdom	66.64	42.79	20.38	28.92
Canada	32.80	31.90	12.25	15.40
South Africa	-32.75	33.09	n.a.	n.a.

* Total return to investors includes both price appreciation and dividend yield to an investor in the company's stock. The figures shown assume sales at the end of May 1986 of stock owned at the end of May 1981 or May 1985. Any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spinoffs are assumed to have been reinvested on the date they were paid. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, the cost of brokerage commissions or of taxes are not reflected in the figures. For all companies, share prices used are those quoted on local exchanges. If a company has more than one class of shares outstanding, only the more widely held and actively traded have been considered. Total return percentages shown are the returns received by a hypothetical investor as described above. The five-year figures are annual averages, compounded.

Source: *Fortune*, August 4, 1986, pp. 202-203.

corporations show the highest 5-year average in annual total returns to investors among Fortune's International 500 Firms, as well as the best performance in 1986. This positive profit performance is also reflected in various balance sheet ratios, such as net operating surplus, indebtedness, and solvency, all of which have shown significant strengthening since 1982 (Industridepartementet, 1985, 1986 and 1987).

In summary, the quality of the adjustment process in Swedish industry has improved dramatically over the past decade, and it has been particularly impressive since 1982. The industrial base is slimmer but much more healthy today than a decade ago, and it is difficult to see major impediments to continued good performance.

Changing Psychological and Political Conditions

Following the initial success of the government's new strategy, the political situation also took on an increasingly positive trend. After nearly a decade of economic misfortune and political confrontations, it was as though there was suddenly a longing for national unity and progress. Pragmatism took precedence over ideologies, and special interests and various political and labour parties began to show a new spirit of mutual understanding and a willingness to co-operate. Moreover, with economic recovery well under way, demands for more ambitious welfare aims in the form of security and equity were toned down, and the market economic system gained renewed support.[18]

This development accelerated notably, with Ingvar Carlsson's recent and sudden rise to power. Riding the wave of public sympathy that followed the assassination of Olof Palme, the Social Democratic party experienced an unprecedented surge in popularity. Ingvar Carlsson, the new Prime Minister, enjoys the highest confidence achieved by any Swedish political leader since the World War II. While his succession meant more of a change in style than in the substance of Social Democratic party politics, it did open the way for more constructive relations with the opposition parties. Ingvar Carlsson's approach is seen as far more measured than his predecessor's combative and often divisive style and attracts more confidence and co-operation. The fact that his rise to power coincided with leadership changes in the other main political parties contributed further to this spirit of solidarity and harmony in social and political relations.

The Swedish economy also seems to have been the beneficiary of an improbable working alliance between an aggressive corporate sector and the Social Democratic Labour party. The Finance Minister, Kjell-Olof Feldt, contributed to this development in no small measure. With pragmatism and a co-operative stance toward business and political opponents, he allowed a series of controversial reinterpretations of what social democracy can accept ideologically and what is desirable from an economic point of view.

The gloom that pervaded much of the last decade has thus slowly been replaced by renewed optimism about the country's future. Mr. Kjell-Olof Feldt, recently summarized this sentiment with a confident tone: "Sweden now has a unique opportunity to eliminate remaining imbalances in the economy and to establish a sustained low rate of inflation".[19]

So it seems that some of the prerequisites for the Swedish model – shared values, co-operation and stability, and optimistic outlook – are slowly being restored.

The Economics of the "Third Way"

The reinstated Social Democratic government in 1982 aimed at economic recovery without using higher unemployment to fight inflation. It rejected major cuts in public expenditure and high unemployment on the one hand, or excessive public spending to stimulate growth on the other. Instead, the government favoured what was termed the "third way".[20] Growth was supposed to be led by increased exports and higher investment, and Sweden was supposed to work and save its way out of the crisis.

The main elements of the new strategy were a major devaluation of the krona to regain competitiveness, tighter fiscal and monetary policy to reduce the budget deficit and lower inflation, and a reversal of the defensive industrial strategy. The idea was to allow industry to play by the rules of the marketplace, and industrial policy was concentrated on R & D, incentives for high-technology investments and exports, and creating a favourable climate for industry.

So far, third way economics has worked, and the Swedish economy has staged a sustained recovery. The country has succeeded in restoring external competitiveness and current external equilibrium and in substantially reducing budget deficits. The restructuring of basic industries has gone further than in most other countries, and Sweden has made an important transition from process-based technology to goods and industries based on high-technology. Business, particularly big business, thrives and export-led growth has boosted company profits to their highest level since the 1960s. Moreover, Sweden has managed to achieve this fundamental structural adjustment without incurring major social upheaval or a severe rise in unemployment.

This recovery can to some extent be ascribed to external factors, in particular the recovery of economic activity abroad and the decline in the price of imports (notably oil). Of equal importance, if not more instrumental to the recovery of the Swedish economy, have been macroeconomic and industrial policies and corporate-level initiatives and adjustments. Exchange rate adjustments ensured international competitiveness, and a range of macro policies – special investment funds, improvements in the functioning of capital markets, special fiscal incentives, etc. – fostered a better environment for industrial growth. Industrial policy measures complemented these efforts with a specific emphasis on forward-looking transformation of industrial sectors, creating renewal and a shift to more knowledge-intensive products and industries.

Initiatives and adjustments at the corporate level were playing a major role too in the turnaround of Swedish industry. Strategic reorientation of Swedish firms in response to internal and external shocks appears, in fact, to have preceded appropriate adjustments in macroeconomic and industrial policies. As a result, in the 1970s and early 1980s, these strategic changes were less effective and masked in the overall poor performance of the Swedish economy. This corporate strategic renewal gathered

momentum, however, after 1982 in the supportive and mutually reinforcing macroeconomic policy setting.

So Sweden is in many ways an economic paradox. Prevailing economic wisdom suggests that Sweden's massive welfare state and high taxes should cause serious market rigidities. On the contrary, as concluded in a recent study of Sweden by the Brookings Institution (Bosworth and Rivlin, 1987), Swedish industry has adjusted to external shocks just as well as the supposedly more flexible economies of the United States and Japan. The Swedish nonconformist approach may thus suggest that the issue is not the size of a country's public sector, but rather the form it takes (see also *The Economist*, March 7, 1987). In Sweden, many government activities have enhanced rather than choked growth, by supporting and reinforcing market forces. Sweden has thus used a capitalist engine to maximize output and its public sector to redistribute the wealth.

However, Sweden's third way still has imperfections. As has been pointed out, Sweden does face a possible problem of escalating wage costs, which threaten to undermine its international competitiveness. The highly centralized wage-bargaining system does not seem to work quite as expected. In place of the export industry that traditionally led wage development, public sector unions have increasingly become a major force in wage negotiations. Given that they are shielded from competitive forces, the link between wages, profits and jobs has been lost. In an effort to keep pay settlements down, the government has increasingly intervened in the wage formation process, while employers' organizations are pushing for greater decentralization to the industry or plant level.

In addition to wages and wage formation, Swedish economists are also worried about the large public sector and high tax rates. The current government accepts that public spending must grow more slowly than GDP and that, in the future, any expansion of public services must result from greater efficiency rather than increased spending. This means exposing public services to more competition. Similarly, the need for some reform of the taxation structure is recognized. Finance Minister Feldt has set his sights on radical tax reform to create better incentives to work and save and a better business climate for entrepreneurs and small businesses.

Resolution of these issues will require a considerable degree of statesmanship and political co-operation.

Notes

1. With the exchange rate adjustment in 1981, this devaluation in 1982 actually created a 26 per cent cost advantage for Swedish industry in relation to its major trading partners.

2. Twenty per cent of profits were to be allocated to these Special Investment Funds and deposited with the Riksbank. The deposits could then be used for investments in machinery and equipment, i.e., for real assets only, with the agreement of the unions in the firms. For 1986, the Special Investment Funds were replaced by

Renewal Funds, in which case the deposits (10 per cent of firms' operating profits for 1985) could be used in addition to real assets in machinery and equipment also for education of employees and R & D activities (see, for example, OECD, May 1985, p. 48).

3. The average annual rate of inflation in 1983 for OECD European countries was 8.3 per cent and for all OECD countries 5.3 per cent.

4. It was the first time in a decade that Sweden had shown a current account surplus.

5. The average annual rate of inflation for OECD European countries, at 7.6 per cent, was roughly comparable to that of Sweden.

6. Japan was the only OECD country to maintain a respectable 5 per cent growth in GDP in 1985.

7. The overall tax burden in Sweden, at more than 51 per cent of GDP, remains one of the highest in the OECD area (OECD, April 1987, p. 9).

8. Production rose by 12 per cent for pulp and by 60 per cent for paper since 1970.

9. In 1985, there were oniy 30 forest companies left in Sweden of the 90 in the late 1960s; the number of pulp mills was reduced from 98 to 56 and paper mills from 68 to 56. The Swedish forest industry now operates on a world scale and with state-of-the-art technology (Noble, 1986).

10. Several companies introduced innovative production techniques, some of which have now been adopted worldwide (Noble, 1986). Among these are a new pulping process (an oxygen bleaching process), which cut production costs in half. Other Swedish developments include a number of new specialty pulp grades that either use substantially less energy or produce more fibre.

11. The use of robots in manufacturing per 10,000 workers rose from 1.3 in 1974 to 29.9 in 1981. Corresponding figures for Japan are 1.9 and 13.9 and for the United States 0.8 and 4.0. Also, it has been estimated that the number of CAD systems tripled between 1979 and 1984 (OECD, May 1985, p. 41).

12. R & D expenditures in Sweden are highly concentrated in large firms. 37 per cent of all R & D expenditures are in the five largest firms, and the corresponding figure for the ten largest firms is 55 per cent (Industridepartementet, 1985, p. 59).

13. Corresponding figure for Germany in 1983 was 2.2 per cent, for the United States 2.0 per cent, and for Japan 1.6 per cent of GDP (OECD, May 1985, p. 41).

14. R & D expenditures as a share of value-added are particularly high in four sectors in Sweden: pharmaceuticals (36 per cent), electronics (18 per cent), transport equipment (16 per cent) and precision instruments (12 per cent) (OECD, May 1985, p. 42).

15. The annual compounded growth rate in foreign direct investment by Swedish firms has been in excess of 30 per cent since 1982 (Industridepartementet, 1986, p. 45).

16. The twenty most multinationalized firms invested around 70 to 80 per cent of their total investment abroad in that period. Some 80 per cent of the employment in these firms is in their foreign subsidiaries (OECD, May 1985, p. 43).

17. The other net exporters of technology in the OECD area are the United States, the United Kingdom, Denmark and Finland (OECD, May 1985, p. 51).

18. These observations are based on various media reports and interviews with government representatives and academics over the last few years.

19. For further details on the most recent developments in Sweden see the *Financial Times* (June 9, 1986 and May 22, 1987), *Business Week* (August 18, 1986) and *The Economist* (March 7, 1987).

20. Sweden's "third way" economics is summarized in Meyerson (1985, pp. 98-101), *The Economist* (March 7, 1987) and the *Financial Times* (May 22, 1987). For an excellent recent analysis of the Swedish economy see also Bosworth and Rivlin (1987).

Chapter 6

Summary and Implications for Canada

This chapter is designed as a summary of the main inferences of this study on Sweden, with an emphasis on the implications for Canada. Since about 1973-74, with OPEC I, the world has clearly changed in a number of important respects relative to developments in the previous quarter-century. The chapter begins with a review of the structural and competitive changes in the international economic environment and of the kinds of demands or adjustments these changes introduced in individual economies since the 1970s. Against this background, the general economic performance and the economic and industrial policies of Sweden and Canada are compared. Although the comparison of the two countries goes back to their early industrialization, the focus is on the more turbulent period of the 1970s and 1980s. Finally, lessons for Canada from the Swedish experience are discussed.

The Changing Shape of the World Economy

The period from the end of World War II to the 1970s was a period of stable economic growth that was without precedent in the experience of the last century. Rates of increase in real GNP per capita and person employed were well above previous levels for both the industrialized and the majority of developing countries. Business cycles in individual countries did persist, of course, but recessions tended to be relatively mild by historical standards and shorter in duration than the longer-term experience. When they did occur in individual countries, the timing was usually different, so that one economy could be expanding while another country was in a recession; thus, alternative export markets could frequently be found.

This general economic environment of high growth, combined with significant tariff reductions on manufactured products (as a result of both general negotiations under the GATT and such regional arrangements for freer trade as EFTA, EEC and ASEAN), has led to dramatic increases in the volume of world trade and in the relative importance of trade in manufactured products. Some countries experienced periods of inflation, particularly after the end of World War II, but again these tended to be in selected countries and for relatively short periods.

The latter part of the 1960s and the period since have witnessed a number of new developments in the world economy, several of which have been unfavourable in relation to the broad economic goals and expectations of many countries.[1]

One important new development has been a widespread slowdown in the rate of economic growth, associated primarily with a significant general slowdown in the rate of productivity increase and with the two oil price shocks in the 1970s. During past periods of slower economic growth, some of the industrialized countries have experienced a severe business cycle depression. Although such severe depressions have not occurred in the 1970s and 1980s, nearly all the industrialized countries have been exposed to mild or intermediate recessions. The reduced severity of such recessions compared to those prior to World War II appears to be associated with the declining importance of the commodity producing industries, the increased importance of government expenditures and the greater relative importance of built-in stabilizers.

International trade and rates of capacity utilization in manufacturing in individual countries have also changed. Over the last decade international trade in manufactured products has continued to grow more rapidly than domestic production and consumption in individual countries. However, the rate of increase in demand and sales has slowed relative to the previous quarter-century. Furthermore, new sources of supply in Japan, the newly industrialized countries of the Pacific Rim, and some of the developing countries have emerged in world markets. This has occurred not only in labour-intensive products such as clothing, textiles, and footwear, but also in some of the more sophisticated areas of manufactured products, such as home electronics and transportation vehicles and, more recently, computers and other high technology products.

Widespread reductions in tariffs and non-tariff barriers have led to a much more competitive world market for manufactured products and to evolving structures and economics of many industries. More and more industries have become global in nature, dominated by large multinationals with competitive advantages based on critical mass and economies of scale in operations or on cumulative volume and experience curve effects. The recent emergence of CAD/CAM and flexible manufacturing systems, however, has spawned a reversal of the dynamics of size in some industries, notably steel and automobiles. Where this has occurred, small and especially medium-sized manufacturers have gained advantages and have done significantly better than larger enterprises in terms of exports and profitability.

In general, the substitution of knowledge and capital for manual labour has also accelerated. This trend has manifested itself in automation or robotization and in the

shift from primarily labour-intensive industries to industries that are information- and knowledge-intensive, such as pharmaceuticals, telecommunications, analytical instruments and information processing. In particular, the information-based manufacturing industries have been growing rapidly. As a result, knowledge workers have become the centre of gravity in the labour forces of developed economies. More and more countries have been forced to move beyond general education and increasingly emphasize technical, engineering and scientific education and technological entrepreneurship.

International trade in natural resources and, thus, in materials-based industries has also moved into a new situation. Trade in these products has been falling as a share of world trade since before World War I, and this trend has continued and accelerated in the more recent past. For practically all commodities, whether forest products, minerals or metals, world demand has been shrinking as the amount of raw material needed for a given unit of economic output has been declining.[2] A significant amount of materials substitution has developed with the growth of plastics, ceramics and synthetic materials as replacements for wood and metals. Furthermore, new sources of raw materials supply have emerged in Australia, South America, Asia and Africa; as a result, many of the natural resource industries have experienced increased international competition, resulting in a virtual collapse of raw material prices. In relation to manufactured goods and services, by 1986 commodity prices had dropped to the lowest levels ever recorded.

Another major new development was the emergence of much more widespread periods of inflation among both the industrialized and the developing countries. Many of the industrialized countries attained rates of price increase (as measured by a comprehensive price index, the GNP deflator) that reached 20 or 30 per cent per year for a number of consecutive years. For some of the developing countries inflation rates were 200 or 300 per cent per year, but there were only a few examples of the extreme hyper-inflation that had taken place historically in some countries.[3] Although inflation was widespread by country, there was also a significant degree of diversity in the rates of increase from one country to another. Over the last decade, for example, such countries as Japan and West Germany have managed to maintain quite low rates of inflation.

These differences in the rate of inflation, together with other economic developments, have also led to a significant amount of exchange rate instability. The International Monetary Fund and national economic policies had permitted an extended period of exchange rate stability during the earlier post-war years, although many countries had changed their official exchange rates at some time during the previous decades. However, what now emerged was a degree of exchange rate instability that was not limited to the peripheral countries in the world economy (as had occurred in the 1930s), but affected exchange rates among the major industrialized countries. For example, between 1980 and early 1985, the U.S. dollar appreciated by about 80 per cent on a trade-weighted basis, followed by a depreciation through mid-1987 that brought the U.S. dollar back to about the March 1973 level. Such an exchange rate change for a major currency was without precedent in peace time in the previous century and a half. In some cases exchange rate fluctuations were influenced by major international capital flows,

and these flows became relatively more important than changes in international trade as a factor contributing to exchange rate instability.

Indeed, some would claim that the "symbol" economy of money, credit and capital has increasingly replaced the "real" economy of goods and services as the flywheel of the world economy.[4] Moreover, it appears that the two economies are no longer bound tightly to each other but are moving further and further apart. For example, with the explosion of transnational money flows since the early 1970s, capital flows and exchange rates have moved quite independently of and frequently even counter to foreign trade.

So it seems that the relationship between turbulence in the world economy and the various domestic economies has become quite ambiguous and that economic dynamics have shifted more and more from national economies to the world economy. Thus, as Peter Drucker concludes (1986, p. 791), we are left with the conclusion that, contrary to prevailing economic theory, a new axiom now dictates that the world economy leads and that domestic considerations, whether economic, fiscal, monetary or even social, are subordinate to international forces and events.

Given these widespread changes in the world economy, countries like Sweden and Canada that are heavily involved in international trade are likely to face formidable adjustments. They are likely to have to make much more skillful choices of stabilization and other economic policies and to make greater adjustments in individual industries than during the quarter-century preceding 1973-74 when economic growth was more widespread and vigorous. We turn now to how Canada and Sweden have responded to the greater degree of turbulence in the world economy.

Performance and Policy Comparisons: Sweden and Canada

As demonstrated in Chapter 2, Sweden's economic and industrial development from its early industrialization in the 1870s and for the next hundred years or so was exemplary. GNP per capita grew more rapidly in Sweden than in any other country in the world, and industrial productivity increases were among the highest in international comparisons. Moreover, despite its traditionally heavy dependence on international trade, the development of its economy was more stable and smooth than in most other countries.

Sweden's economic policies, in particular its labour market and stabilization policies, and the capacity of Swedish industry for change and adjustment have been instrumental in the country's achievements. These factors allowed Sweden to recover exceptionally quickly from temporary imbalances in its economy, although some of them have been quite severe. They also played an important role in the development of Sweden's industrial base from its traditional primary commodity focus to an advanced manufacturing emphasis. Of utmost importance to Sweden's industrial transformation have been the raw material resources of the country, the innovative and technologically entrepreneurial industry sector, and the aggressive international outlook of Swedish firms.

Since the advent of Social Democratic rule in 1932, political and institutional factors have further reinforced the country's economic ambitions, leading to the rise of the internationally admired Swedish model. The Swedish economy appeared to have reached its peak of model achievement around the mid-1960s, characterized by full employment, a low inflation rate, a high degree of cyclical stability, no balance-of-payments troubles, a rapid rise of the public sector, no structural imbalances and a comparatively high rate of growth.

Canada's early economic and industrial development took a very different route.[5] Failing to renew the limited free trade arrangement with the United States (the Elgin Marcy Treaty of 1854[6]) or to enter into a more extensive bilateral arrangement, Canada adopted an alternative development strategy, the National Policy of 1879, which sought to build the country along east-west lines. The National Policy incorporated high tariff protection to encourage domestic manufacturing, a transportation policy to foster east-west connections, and an open immigration policy to populate the demographic ribbon north of the U.S. border. The primary significance of the National Policy was not economic but political, and much of Canada's economic development over the past century has been determined on political rather than economic grounds.

While it helped to establish a nation, in industrial terms the National Policy was not very successful. The establishments started toward the end of 1800s, though quite large in number, were mostly small, unspecialized and not very efficient. Industrial production and trade was slow and halting throughout the first four decades of the 1900s, relieved only in part by the impetus that World War I gave Canadian industry and later by the incentives given to foreign corporations during the Great Depression to establish manufacturing operations behind Canadian tariff walls.

In the wake of World War II, supported by some progressive post-war reconstruction policies and programs, Canadian industry finally shifted from an agricultural and natural resource production base to more sophisticated stages of natural resource processing and manufacturing of a limited range of more technologically advanced products. Canada also capitalized on the opportunity to develop export markets for many products. As a result of intensified international competition in the late 1950s and early 1960s, however, the Canadian economy again encountered a period of slow growth, compounded by balance-of-payments and exchange rate problems and high unemployment. An additional concern was rapidly growing foreign investment and control of Canadian industry. While these problems continued through the rest of the decade, because of substantial employment expansion, Canada's growth performance in the late 1960s and early 1970s was quite good and comparable to that of the leading industrialized countries.

During the 1950s, there was a minimum of government intervention in the economy. Canada was open to foreign investment and strongly supported the GATT negotiations on freer trade through reciprocal tariff reductions. The economic, political, social and cultural problems that emerged during the 1960s, however, significantly influenced the Canadian policy environment. In economic terms, several problems became prominent, such as Canada's low levels of private industrial R&D, the fragmented and uncompetitive nature of the manufacturing sector, and the high degree of

foreign ownership and control of Canadian industry. Other concerns included growing constitutional problems characterized by federal-provincial rivalries, pressures to provide a more equitable income distribution, and concerns about Canadian cultural independence. These economic and socio-political issues prompted a set of actions, although not totally coherent, to create the necessary adjustment in Canada's economic and industrial structure. New institutions were established and a large number of programs were implemented to facilitate the adjustment process.[7]

Thus it was from very different positions that the two countries faced the turbulent environment of the 1970s. Sweden entered the decade with a well developed and strongly international industrial base and supportive political and institutional arrangements, but still basically with a market-based economy and, possibly, with a degree of over-confidence in its achievements and capabilities. Canada, on the other hand, was struggling with a range of economic and socio-political issues. Its manufacturing sector was weak and largely uncompetitive, and its traditionally strong resource industries were experiencing cost pressures at home and intensified competition in world markets. Canada's institutional conditions for policy making were still evolving, and there did not appear to be much co-ordination and cohesiveness among its numerous new programs for industrial development (see also Gillies, 1981).

Sweden was exceptionally hard hit by the oil shocks of OPEC I in 1973-74 and OPEC II in 1979. For nearly a decade, in virtually all aspects of its economic performance (the obvious exception being the country's low unemployment rate) Sweden was below the OECD's country average. There are no simple explanations for Sweden's economic crisis. External disturbances were one set of factors. International stagflation and sharply rising oil prices had serious effects on the country's economy and industry. Low-cost competition in resource-based industries from new, more accessible deposits and intensified competition from Japan and the newly industrialized countries in manufactured products were other contributing factors.

These external shocks to Sweden (which were also felt by both large and small countries during the 1970s) were severely compounded by serious mistakes in Swedish economic policy. One serious problem was an expansionary monetary policy, which led to much more rapid increases in domestic costs and prices in Sweden than in other industrialized countries, including Sweden's major trading partners. For example, unit labour costs in Sweden more than doubled between 1973 and 1980, while France, West Germany and Japan experienced increases of less than 50 per cent over the same period. Only the United Kingdom had a more rapid increase. Furthermore, the Swedish government borrowed a significant amount of foreign exchange by selling new issues of government bonds in New York and elsewhere, thereby helping to maintain the Swedish krona in an overvalued position. By 1980, unit labour costs in Sweden were among the highest in Europe, about two-thirds above costs in the United States and more than double the Japanese level. Such a high cost level affected sales volume and profitability in the export industries and encouraged import competition.

An important element in domestic policy was the adoption of a clearly interventionist stance and rather defensive industrial policies to maintain employment and investment in the industries affected. Massive selective subsidies to industry were

introduced. These policy changes did help to keep the reported unemployment rate down, but they also slowed down or even prevented the longer-term reallocation of resources that had taken place during earlier crisis periods in Sweden.

In an important way the crisis of the 1970s in Sweden was different from those earlier in the country's history. The crisis was not only economic but political as well. The emphasis on the welfare state had gone too far and had started to erode the country's productivity and growth performance. When the realization came that economic resources were insufficient to fulfil both private and public needs, confidence in the Swedish model was shattered. The shared values, co-operation and optimistic outlook that had characterized the previous decades slowly disintegrated, leading to weak and indecisive governments and an unstable political situation. With such disarray in political and institutional relations, economic and industrial policies were doomed to fail.

Canada's experience of the 1970s was again quite different from that of Sweden. Moreover, the usual similarity between cyclical developments in the United States and Canada also appears to have been interrupted in 1974 and for the rest of the decade.[8]

Canada also had to cope with a less favourable socio-economic environment in the face of the first oil shock (OPEC I) and the worldwide recession of 1974-75. However, efforts to maintain output and employment – in the form of price and income controls, a tighter stance on monetary policy, and a downward adjustment in exchange rate – met with some success. In addition, as a net energy exporter, Canada was to some extent spared the adverse trade effects of escalating oil prices. Oil revenues, together with substantial price increases for the country's other resource exports, helped to offset unfavourable volume developments in the trade balance. As a result, until 1979 Canada's broad economic performance was adequate, at least in comparative terms, although the economy experienced below-potential output growth, and inflation and unemployment were higher than in the early 1970s. With increasing growth in the public sector, the general government account also shifted into deficit in 1975.

The oil shock in 1979 resulted in a more moderate decline of activity in the industrialized world (and especially the United States), thus implying a less unfavourable external environment for Canada than in 1974-75. Nevertheless, Canada's output growth was weaker than expected. While exports held up better on average than in 1974-75, there was a sharp weakening in domestic demand and a substantial slowing in the rate of productivity growth. Moreover, the unemployment rate edged further upward, inflation remained persistently high, and the government deficit grew still larger. Ultimately, Canada experienced its most severe post-war recession in 1981-82.

Compared with Sweden, Canada experienced slightly less inflation in domestic costs and a smaller decline in the value of its currency over the 1970s and early 1980s. In addition, government expenditures and taxes stayed much lower in relation to GDP than in Sweden.

Throughout the 1960s and 1970s, Canada's industrial policies have been designed to provide general assistance for industrial restructuring and for promoting research and development.[9] Although the number of industrial, regional and trade development

schemes (mainly in the form of loan guarantees) was increasing during the 1970s, they did not escalate in Canada to the extent they did in Sweden during the 1970s, and in the early 1980s subsidy payments in Canada were still quite negligible by international standards. It also appears that the various schemes or programs were not formulated with a consistent strategy in mind but evolved in a piecemeal fashion as needs and political pressures emerged. As a result, following an attempt at administrative rationalization, the various development schemes were replaced by a single Industrial and Regional Development Program. This program offered federal assistance for modernization and expansion of productive facilities for manufacturing and some selected service sectors, development of new products and processes, industrial restructuring, establishment of industrial infrastructure, and market research (see also OECD Economic Surveys of Canada, July 1984, p. 22).

Canadian industrial policies appear less than effective, however, having no noticeable effect on the development or transformation of Canada's industrial base. As concluded by D'Cruz and Fleck (1985), in the last two decades, the Canadian industrial portfolio has undergone relatively little adjustment, and there has been little change in the comparative advantage of the various sectors. The country's transition pattern, if anything, has been very mixed. Much of the strength in comparative advantage has been in low-growth sectors, and Canada has had a comparative disadvantage in sectors where world trade has been growing. Industries still exhibiting a comparative advantage in the early 1980s were based on the country's raw material resources. This development meant that Canada's primary industries, including those manufacturing activities that involved a relatively low degree of raw materials processing, still accounted close to 20 per cent of GDP in 1981, a share substantially larger than in most other developed countries.[10] Moreover, Canada's resource-based share of traded goods output remained about the same, that is around 60 per cent, during the two decades from 1961 to 1981 (OECD July 1984, p. 29).

With the worldwide economic recovery since 1982, both Sweden and Canada have been experiencing favourable developments in their economies.

Sweden in particular has succeeded in just a few years in restoring external competitiveness, profitability and current external equilibrium, and significantly reducing budget deficits, while achieving a remarkable degree of structural adjustment without incurring a rise in unemployment. In fact, industrial restructuring has gone further than in most other countries, with the result that Sweden today has an internationally highly competitive industrial base with a significant knowledge-intensive component.

Instrumental in Sweden's recovery was a change in government strategy, from a gradual approach to a co-ordinated, cohesive set of actions in a much more market-oriented regime, emphasizing industrial growth and renewal, promoting innovation, and creating a supportive climate for sustained industrial expansion. In essence, this strategy coincided with and reinforced the strategic reorientation of Swedish firms in response to internal and external shocks and added momentum to the strategic adjustment process.

The key factor in encouraging the change was a series of major international devaluations of the Swedish krona. By 1985, the krona had depreciated to half its 1980 value in relation to the U.S. dollar. This brought Swedish unit labour costs more into line with the other industrialized countries than they had been for years and laid the basis for recovery in production, exports and profits, especially when accompanied by important changes in company policies initiated by the private sector.

The changing political and institutional landscape – in the form of a strong government and more harmonious and co-operative social and political relations between various interest groups – was also a necessary condition for the country's impressive turnaround.

At present, the Swedish government continues to face the challenge of keeping wage and price inflation under control and improving the wage formation process. Bringing down the budget deficit further and reducing the high tax burden will also be necessary to secure and to improve upon the progress achieved so far.

Canada's recovery from the recession also registered several notable successes in the last few years, but Canada still faces some major medium-term and long-term problems.[11] Beginning in 1983, the Canadian economy far exceeded expectations in some respects, and economic developments proved much more favourable than seemed likely when the country was emerging from its most severe post-war recession. In the wake of a powerful boost from the upswing in the U.S. economy, reinforced by an expansionary federal fiscal stance, output growth in several of the years between 1983 and 1987 outpaced that in the United States; in 1984 the country posted its highest average annual growth rate since 1976. Productivity growth revived after some years of sub-standard performance, and although Canada's competitiveness deteriorated somewhat against that of its trading partners as a whole, it clearly improved in relation to the United States, a development that pushed the country's external trade account into record surplus in 1983 and 1984. At the same time, wage and price inflation were cut in half, and strongly improved profits made it possible for corporations to strengthen their balance sheets. Although Canada's labour market was the fastest growing among the major economies, the unemployment rate (somewhat over 11 per cent in both 1983 and 1984) remained high relative to both historical experience and the OECD average.[12]

The Canadian economy continued its positive recovery in 1985 and 1986, and although the pace of economic growth slowed, Canada's economic growth was the strongest among the major industrial countries in 1986.[13] However, the vigour in Canada's export markets and the sluggish nature of Canada's domestic expansion (which depressed import volume) in 1983 and 1984 were increasingly replaced by a deterioration in merchandise and service trade, while domestic demand improved substantially. As a result, Canada's current external balance was pushed into deficit in 1985, for the first time since 1981, and deteriorated further in 1986, reaching 1.75 per cent of GDP. Labour productivity growth also started to decelerate in 1985 and came to a virtual standstill in 1986. Similarly, the substantial deceleration in inflation since mid-1981 came to a halt and stabilized around 4 per cent, the highest rate among the seven large economies. As a result of sharply decreased energy and other commodity prices, aggregate business profits, profitability and balance sheet positions all weakened in 1986. The

unemployment rate dropped, however, by over 3 per cent in 1985 and by a further 1 per cent in 1986, although it still remained high relative to historical experience and the OECD average.

There are some signs that firms in the resource-based industries are in the process of restoring their competitiveness, in part by adopting new technologies. However, the fact that they have so far benefited little from the upturn is making their future prospects doubtful. It would thus appear that they have longer-term structural problems linked to changes in international demand and supply conditions.

These longer-term structural problems appear quite pronounced even in the pulp and paper industry, Canada's largest and traditionally its strongest sector.[14] In its essentials, the industry remains much as it was a decade ago. In 1970, the Canadian pulp and paper industry operated 139 mills, compared with 137 today. The industry lacks modern mills of world scale, and its productivity levels appear markedly below those of its competitors, particularly Sweden. Most of the production from Canadian pulp and paper mills is destined for mature markets with not much, if any, growth. While Sweden and Finland have redirected their efforts from pulp to paper making, and thus to more value-added, Canada has substantially increased its raw pulp production capacity. Given Canada's advanced technological position in earlier periods, perhaps the clearest indication of the eroding competitiveness of the Canadian pulp and paper industry is the fact that its most progressive firms today are borrowing Swedish and Finnish technology.

The Canadian federal government elected in September 1984 announced a wide-ranging reorientation of economic policies in its "Agenda for Economic Renewal" (published in November 1984), followed by additional measures in its first complete budget. The thrust of this new policy approach was to reduce government involvement in the economy, by curtailing existing regulation and privatizing selected public enterprises, and to reduce the public sector budget deficit through revenue enhancement and expenditure cuts, by fostering entrepreneurship, stimulating private sector growth, reforming the tax system, and improving the efficiency in social programs (see, for example, OECD October 1985, pp. 18-25). So far, some progress has been made in deregulating the economy, particularly in the energy, transportation and foreign investment areas, and a number of public enterprises have been sold or closed down. The federal government has also achieved a substantial measure of success in reducing the budget deficit, which was reduced from 6.8 per cent of GDP (on a national account basis) in 1985 to 4.9 per cent of GDP in 1986.[15] Moreover, in June 1987 the Minister of Finance announced his plans for introducing comprehensive reform of the taxation system.

An OECD Economic Survey of Canada (August 1987) concludes that, with no major changes expected in the world economy, on balance Canada's short-term prospects appear relatively favourable. The country must, however, come to grips with two important medium-term problems: persistently high levels of unemployment relative to historical experience and levels in other developed countries, and the excessive level of the federal government deficit, which is still the second highest among the major economies. As to the longer-term perspective, the OECD concludes that the ultimate

effect of the new policies on the sustained performance of Canada's economy and on needed structural adaptation of the country's industrial base is still uncertain.

The Swedish Experience: Lessons for Canada

There are two broad areas in which useful inferences can be drawn from this study of Sweden's economic and industrial developments and policies. One area is how small and intermediate sized economies can respond to the dynamics of the world economy and compete in international markets. The second area relates to issues of economic and industrial policy and their effectiveness in achieving economic goals and objectives in open economies like Sweden and Canada. In seeking lessons for Canada, however, it is imperative to keep in mind that the applicability of the Swedish experience must be considered carefully in the context of Canada's unique socio-political infrastructure and system of values.

History suggests that there is no single path to industrialization or industrial development. That said, some common themes emerge from experience that may point the way for countries engaged in industrial development and change. A rich endowment of natural resources, for example, may provide the financial means for industrial development. In large economies, domestic trade may provide scope for adequate specialization and economies of scale and enough competition to keep the corporate sector alert. Neither natural resources nor size guarantees success in industrial development, however – human resources management and policy appear to matter more. Effective corporate sector management and an appropriately educated and trained work force are both essential for industrial progress. Public policies are also crucial in assisting to provide a stable and rewarding environment that helps the corporate sector generate growth and high incomes in the country.

In addition to Sweden's rich endowment of natural resources, industrialization and industrial development from the outset also involved the interaction of technology, specialization and international trade, a situation that Sweden managed to use fully to its advantage. This interaction provoked structural change and facilitated adjustment in the economy and industry.

A long history of low tariff barriers and vigorous participation in international trade permitted Sweden to reap the benefit of its great raw material resources and allowed producers in its small domestic market to specialize and export to a larger market. With the financial means generated by a rich endowment of natural resources, and with worldwide exposure to foreign competition and new technologies, Sweden was also in the advantageous position of being able to make intelligent choices about technology.

Sweden's long history of encouraging technical and engineering education, of innovation and technological advancement, and of technological entrepreneurship further facilitated Sweden's technology choices. Rapid technological change meant continuous requirements for structural adjustments in industry, and Swedish corporations learned to respond well to these demands. They demonstrated an

exceptional ability to search out, acquire and apply new technologies and transformed the country's primarily material-intensive industrial base into a more knowledge-intensive one.

Given its small size and scarce resources, Sweden also recognized the limits on her ability to compete successfully in a wide range of product areas and thus the need to specialize. To make use of the country's raw material resources and to exploit the country's emphasis on technological advancement and entrepreneurship, Sweden turned to the engineering sector. From the early days of industrialization, some genuine Swedish innovations have propelled industrial development, and the firms that formed around these innovations have continued to play a major role in the country's industrial development and international trade. Over the years these firms not only maintained but strengthened their advantageous competitive position and served as catalysts in shaping Sweden's widely admired engineering sector.

For small open economies like Sweden and Canada the ultimate challenge is thus the capacity for change and adjustment, involving competition and specialization in a limited range of products and adjustments in the composition of trade in response to changing markets, changing technologies and changing competitors. In Canada's case, its traditionally protectionist stance and small domestic market left the country with excessive foreign ownership in industry and an overly inward-oriented and complacent corporate sector. In addition, the importance of technology for industrial development and international competitiveness has not been acknowledged fully, and Canada's commitment to R&D remains among the lowest of the major industrialized countries.[16] As a result, Canada's industrial base and goods trade are dominated by the natural resource-based industries and, to a large extent, by a relatively low degree of raw material processing. Apart from the resource sector, with some important exceptions, such as selected areas of the services sector and telecommunications, Canada's corporate sector is focused on consumer products and domestic markets.

Sweden's long history of non-intervention in the production of goods and the government's traditionally positive stance toward business in general and particularly toward large industrials, have also been crucial in the progress of Swedish industry.[17] In fact, it was the departure from this non-interventionist approach that was responsible in part for the country's economic crisis of the 1970s. During the 1970s Sweden introduced policies of major subsidies to industry and increased public ownership of businesses that were in serious economic difficulties. However, these policies were not sufficient to lead to a significant recovery in domestic business activity or international trade. In fact, the policies tended to slow down or even prevent the shift of resources to expanding areas or to encourage entrepreneurship in identifying and developing products and markets more in phase with market realities. It was only after a reversal in industrial policies, with a substantially smaller commitment of resources, emphasizing the forward-looking transformation of industries, the creation of new businesses, and a return to a more market oriented regime, that a turnaround started to materialize in the Swedish economy and industry.

On the other hand, the Swedish government has traditionally played an active and skillful role in economic policy and has been particularly successful with its stabilization

and labour market policies. Sweden has always been avant-garde in its economic policy – it adopted Keynesian policies in 1933, even before Keynes had published his general theory. Active programs to tackle unemployment, such as recruitment subsidies and job creation schemes, and to improve the mobility of labour, with measures like retraining, grants for relocation of workers, and employment information services, have always played a prominent role in Sweden's stabilization policy. The solidaristic wage policy was another element in Sweden's successful labour market policies that was instrumental not only in reducing wage differentials but also in improving the mobility of labour. Indeed, as a recent study by the Centre for Labour Economics at the London School of Economics suggests, of the 18 OECD countries Sweden has the most flexible labour market in terms of its ability to respond to shocks (*The Economist*, March 7, 1987, p. 25).

Sweden's wage policy and its unique centralized system for wage formation – the EFO model – also served for many years as an important mechanism for maintaining the international competitiveness of Swedish industry by letting export industry set the standards for wage development.

The less effective stabilization policies of the 1970s, which contributed greatly to the country's economic crisis, are thus an atypical chapter in Sweden's economic history. A key problem in the 1970s was the degree to which monetary and fiscal policies, combined with an overvalued currency, contributed to widespread problems in Swedish industry and in individual firms. The lack of timely recognition of the need for structural adjustment in industry and a disastrous industrial policy, which acted more to perpetuate structural problems than to facilitate structural adjustment, were other problem areas. Labour market policies also shifted, from easing individual adjustments to labour market demands to maintaining employment levels within existing industry and corporate structures, a change that contributed further to preserving structural rigidities. The collapse of the centralized wage bargaining system and the government's increased involvement in the negotiation process only complicated the situation further.

Many decades of co-operation between business, labour and government, together with strong, centralized organization of labour and business, were also a critical and necessary part of the successful Swedish model. These supportive political and institutional relations made it possible for Sweden to maintain stability and continuity in macroeconomic policies, which were crucial for success at the microeconomic level. A case in point is the 1970s, when disintegrating social and political relations resulted in disorder in macroeconomic policies and policy-making mechanisms, leading ultimately to the country's worst economic crisis in history.

Even disregarding the disastrous decade of the 1970s, the Swedish economic system has not been without problems and flaws, whether today or in the past. Today, excessive public spending and the tax system are regarded increasingly as major hurdles to getting the Swedish economy back on a sustained recovery and growth path. The obstruction created by the size and structure of the public sector, in the form of a reduced labour supply, tax evasion and an underground service sector, is an obvious phenomenon in Swedish society today. Moreover, as several studies have established, the lack of

competition for public sector production of services has resulted in a spectacular waste of resources.

High personal taxes and the very high marginal tax rate are believed to bring about major distortions in resource utilization and consequent losses in the efficiency and prosperity of the national economy. Similarly, capital taxes impose distortions on the economy by skewing the relative returns on different types of investment. In terms of corporate taxes, the current taxation system is stacked against small businesses, since small firms are unable to take advantage of the generous investment credits unless they are already profitable.[18]

In the Canadian context, there is a long history of direct government involvement in attempts to stimulate and shape economic and industrial growth. Indeed, the interest of Canadian governments in stimulating economic well-being is as old as the country itself, dating at least to Colbert's determination to increase agricultural settlement and create secondary industries for New France in the 1660s. The historical record shows, however, that there has been little unity or coherence in Canadian economic and industrial policies. As Bliss (1982, p. 42) concludes, Canada's policies have sometimes been contradictory, sometimes complementary, sometimes simply confused, and some policies have certainly been disastrous failures. Canadian policies have reflected a plurality of interests and have had a plurality of effects – a situation very different from the unitary approach to policies in Sweden. Neither have comparable levels of shared values, co-operation and stability between business, labour and government been present in Canada either historically or currently. Furthermore, the decentralized federal system of government and the related division of powers would make successful implementation of such policies in Canada much more difficult, if not impossible.

In conclusion, Sweden's experience offers some interesting insights that may point the way for the efforts of Canada and other small and intermediate-sized economies to develop internationally competitive industry and to sustain economic performance. One important conclusion is that no single factor can explain the successes or failures of the Swedish economy and industry. It was a combination of factors and the way they interacted that ultimately shaped economic and industrial performance. A rich endowment of natural resources and the interaction of technology, specialization and international trade were all instrumental in economic progress. Second, this interaction was facilitated and nurtured in a supportive and stable macroeconomic environment made possible by political stability, shared values and co-operative relations between business, labour and government. Finally but not the least, an imaginative and competent corporate sector managed to make full use of this benign macroeconomic environment, acting as the catalyst and the active agent in the interaction of technology, specialization and international trade and, thus, in industrial progress.

Notes

1. For a detailed review of trends and developments since the late 1960s in the world economy see, for example, M. Abramowitz (in Malinvaud 1979, pp. 1-51), UNIDO

(1981), Drucker (1986) and The World Bank (1987). The following brief summary on the changing world economy is based primarily on these sources.

2. According to a recent study by the International Monetary Fund (Sapsford 1985), the amount of raw material needed for a given unit of economic output has been declining by 1.25 per cent a year compounded since 1900. The Japanese experience suggests, however, that the decline has been accelerating strongly more recently. In 1984, Japan consumed only 60 per cent of the raw material consumed for the same volume of industrial production as it did just a decade earlier (Drucker 1986, p. 773).

3. Hyper-inflation is defined as a rate of price increase in excess of 45 per cent per month.

4. For further details on the increased importance of the "symbol" economy – capital movements, exchange rates and credit flows – see Drucker (1986, pp. 781-786).

5. This brief summary of Canada's early developments is based primarily on Morici et al. (1982, pp. 6-8). For a more comprehensive review of Canada's business history see Bliss (1987).

6. Under the treaty, about 90 per cent of U.S. imports from Canada and approximately 55 per cent of Canada's imports from the United States were duty-free between 1855 and 1866 (see Guthrie published in Lea 1963, p. 85).

7. For further details on these institutional changes and new programs see, for example, Morici et al. (1982, pp. 12-15).

8. This brief summary of Canada's economic development and policies during the 1970s and early 1980s is based on OECD Economic Surveys of Canada (January 1981, June 1982, June 1983 and July 1984) and D'Cruz and Fleck (1985).

9. For a review and analysis of Canada's economic and industrial policies see J. Milne (in Adams and Klein 1983, pp. 205-220), Bliss (1982) and Morici et al. (1982).

10. Among OECD countries this share is comparable or higher only in Australia, New Zealand, Norway and Iceland. The larger European countries' share is about 10 per cent and United States' share is somewhat over 10 per cent (OECD July 1984, p. 43).

11. This review of the most recent developments in the Canadian economy is based on OECD Economic Surveys of Canada (July 1984, October 1985, July 1986 and August 1987).

12. Canada's 2.6 per cent average annual increase in employment between 1960 and 1982 compares favourably with the 1.8 and 0.9 per cent figures for the United States and for all of OECD respectively. Canada's unemployment rate of over 11 per cent was, however, about 3 percentage points above the average for OECD countries (OECD, July 1984 and October 1985).

13. Canada's GDP growth was 4.3 per cent and 3.3 per cent in 1985 and 1986 respectively, substantially below the 5.1 per cent recorded in 1984 (OECD, August 1987, p. 9).

14. The Canadian pulp and paper industry is reviewed in Noble (1986) and the resource sector at large in OECD Economic Surveys of Canada (July 1984).

15. However, the provincial government sector's deficit rose from $4.9 to $8.2 billion (1.6 per cent of GDP) between 1985 and 1986 (OECD, August 1987, p. 25).

16. In 1983, for example, Canada's industrial R&D expenditures as a share of the domestic product of industry was 0.9 per cent, compared with 2.6 per cent for Sweden, 2.3 per cent for West Germany, 2.2 per cent for the United States, 1.9 per cent for Japan, and 1.6 per cent for France. A decade earlier, in 1973, the comparable figures were 0.6 per cent for Canada, 1.9 per cent for the United States, 1.5 per cent for Sweden and West Germany, and 1.3 per cent for Japan and France (Statistics Canada, 1985, p. 13).

17. For example, the corporate tax burden has always been relatively light. Even today, while Sweden's nominal corporate tax rate is about 50 per cent, the effective tax rate is around 20 per cent. Generous deductions for investments allow and encourage firms, particularly the profitable ones, to plow their cash earnings back into reserves for capital development.

18. The current government has recognized the detrimental effects of these factors on the Swedish economy and appears determined to face up to them. Indeed, public sector expenditures have already been brought down from their previous high of 67 per cent of GNP to their current level of 64 per cent. According to Mr. Feldt, the Finance Minister, the ultimate aim is to bring the budget of the central government into balance by slowly shrinking the share of government spending in GDP. Mr. Feldt also envisages radical tax reform to remove the existing imbalances and inefficiencies of the tax system (see, for example, *The Economist*, March 7, 1987).

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